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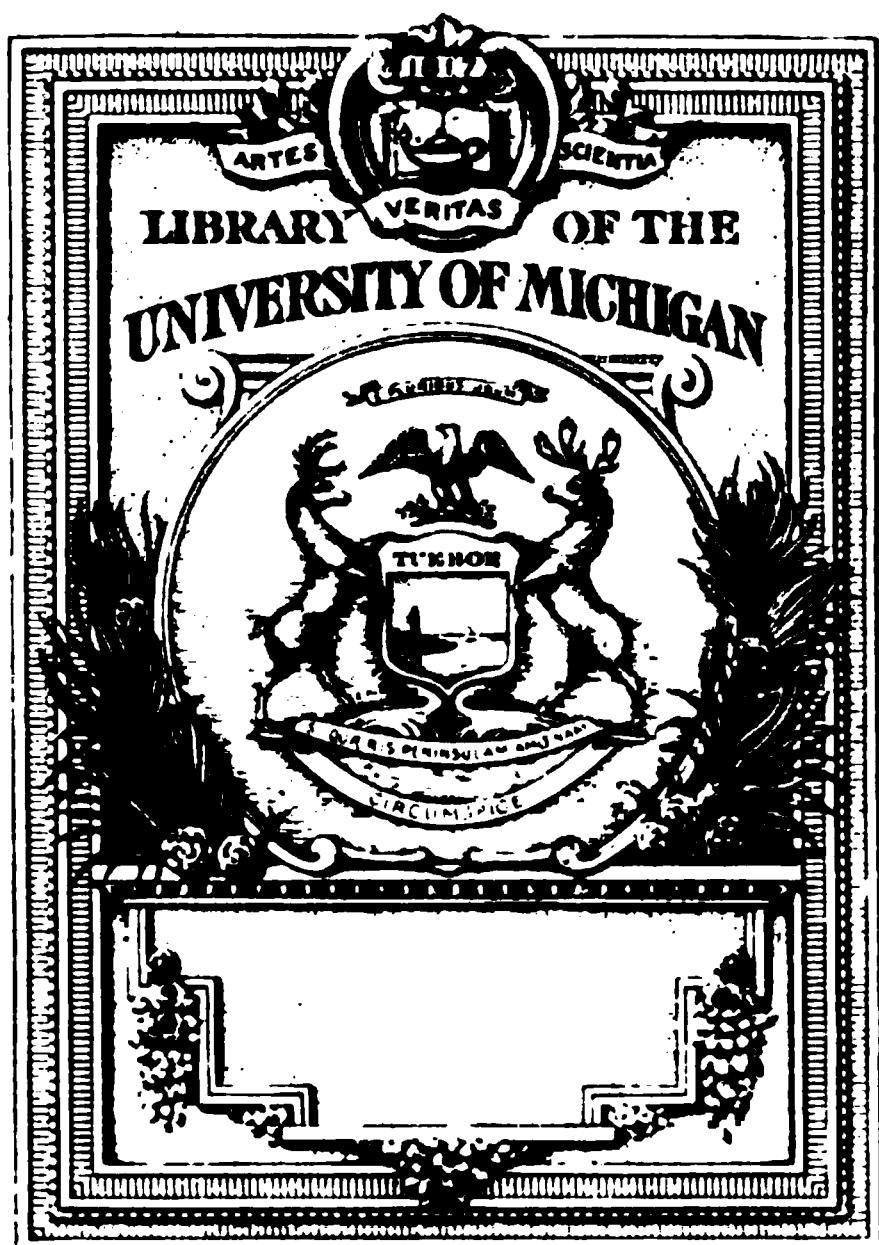
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DOCUMENTS
OF THE
ASSEMBLY

OF THE
STATE OF NEW YORK,

ONE HUNDRED AND TWENTIETH SESSION.

1897.

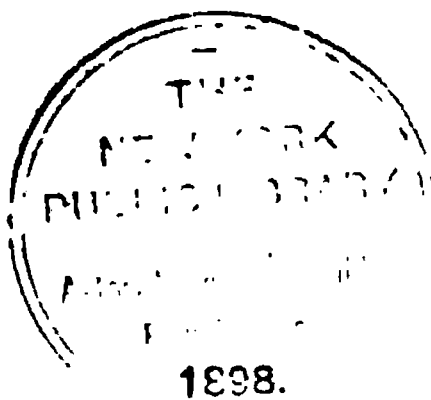
VOLUME XVII—No. 71.—PART II.

WYNKOOP HALLENBECK CRAWFORD CO.,

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1897.



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STATE OF NEW YORK

DEPARTMENT

OF

PUBLIC INSTRUCTION

FORTY-THIRD ANNUAL REPORT

OF THE

STATE SUPERINTENDENT

For the School Year Ending July 31, 1896

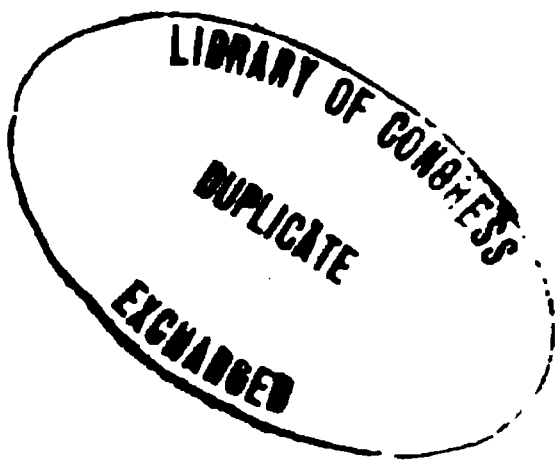
VOL. II.

TRANSMITTED TO THE LEGISLATURE MARCH 30, 1897.

WYNKOOP HALLENBECK CRAWFORD CO.,

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EXHIBIT No. 12

STATE CERTIFICATES

1. QUESTIONS SUBMITTED AT EXAMINATIONS, 1896
 2. TABULATED STATEMENT OF EXAMINATIONS, 1896
 3. LIST OF SUCCESSFUL CANDIDATES, 1896
 4. STATISTICAL TABLE, 1875 TO 1896
 5. CIRCULAR, REGULATIONS AND PROGRAM FOR 1897
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STATE CERTIFICATES

1. QUESTIONS SUBMITTED AT THE EXAMINATION FOR STATE CERTIFICATES

August 24-28, 1896

Every correct answer will receive ten credits, and a proportionate number as the answer approximates correctness.

CIVIL GOVERNMENT AND SCHOOL LAW

1. (a) What are the three chief departments of government? (b) What is the need of each one of these departments?
2. (a) What is the right of a writ of habeas corpus? (b) What does the Constitution of the United States say of it?
3. (a) How are the members of the electoral college chosen? (b) How is the number in a State determined?
4. Show how a minority of a people may elect a president.
5. Describe two methods of ratifying amendments to the national Constitution.
6. (a) Is the United States a confederation or a federal union? (b) Distinguish.
7. (a) How many judges are there of the Supreme Court of the United States? (b) How are these judges appointed? (c) For how long do they serve? (d) What reason is there for their term of service being what it is?
8. Name the constitutional qualifications of governor of New York.
9. (a) Name three causes for which the State Superintendent may withhold State school moneys from a school district. (b) Under what conditions, if any, may such district afterward receive the money so withheld?
10. (a) In a school district meeting in what manner must district officers be elected? (b) In what manner must all propositions relating to the expenditure of money or authorizing a tax levy be adopted? (c) What vote is necessary for election or adoption in either of these cases?

GRAMMAR

1. I had designed otherwise, said Saladin, but had I not hastened his doom,
2. it had been altogether averted, since, if I had permitted him to taste of my
3. cup, as he was about to do, how could I, without incurring the brand of
4. inhospitality, have done him to death as he deserved?

SIR WALTER SCOTT.

The first seven questions refer to the above selection.

Notes.—1. A combination of subject and predicate is called a clause. Clauses are principal or subordinate.

2. Subordinate clauses include (a) subject clauses; (b) objective clauses; (c) adjective clauses; (d) adverbial clauses.

3. In naming a clause, include only its unmodified subject and unmodified predicate.

4. A preposition with its object is called a phrase.

5. In naming a phrase, give only the preposition and its unmodified object.

6. A modifier may be a word, phrase, or clause. In giving modifiers, if words, name the part of speech to which they belong. In like manner state the character of modifying phrases and clauses, as adjective, adverbial, etc.

7. An object of a transitive verb is classed as a modifier of that verb.

8. Only eight parts of speech are recognized — the articles the and a forming a subdivision of adjectives, and participles being one of the forms of verbs.

9. Infinites are classed as modes of the verb.

10. In parsing a noun or pronoun, observe the following order: Class, person, number, gender, case. Give the reason for case. In parsing a relative pronoun, state the agreement with its antecedent.

11. In giving the syntax of a noun or pronoun, give only the case and the reason for it.

12. Treat verbs as divided into two classes only, viz., transitive and intransitive. A transitive verb may be used in the active or the passive voice.

13. In parsing a verb, observe the following order: Principal parts, regular or irregular, transitive or intransitive, voice, mode, tense, person, number, agreement. Give the special use of an infinitive or a participle after tense.

1-2. (a) What is the principal clause? (b) What two clauses directly modify its predicate? What is the character of those modifying clauses? (See note 2.) (c) By what two clauses is the predicate had been averted modified? (d) Give the six modifiers of the predicate could have done. (Note 6.)

3. (a) What part of the verb is incurring (line 3)? (b) In what respect does it perform the office of a noun? (c) a verb?

4. State what clauses are connected by (a) but (line 1); (b) since (line 2); (c) if (line 2).

5. (a) Select the infinitives. (b) State what grammatical disposition should be made of each of them.

6. (a) When should the subjunctive mode be used? (b) Give an example.

7. Illustrate in sentences the passive voice of a verb, ordinarily intransitive, made transitive (a) by the addition of a preposition; (b) by an object of kindred signification; (c) by being used with an unusual meaning.

8. (a) Give three verbs which take after them two objects denoting the same person or thing (exclusive of appositives). (b) Write a sentence containing one of the above verbs in the active voice. (c) Re-write the sentence, changing the verb to the passive voice. (d) Give the syntax of the two nouns in the last sentence.

9. Give an example in a sentence of a noun independent (a) by direct address; (b) before a participle.

10. Illustrate by sentences (a) a clause used as attribute (predicate noun); (b) as an appositive modifying a noun.

ARITHMETIC

1. (a) The local value of a digit in the fifth integral place is how many times the value of the same digit in the third integral place? (b) The local value of a digit in the second decimal place is what part of the value of the same digit in the second integral place?

2. A riding a 24-inch wheel, B a 26-inch wheel, and C a 28-inch wheel, found that after riding together a certain distance each wheel had made a certain number of complete revolutions. How far had they ridden?

3. (a) Determine by inspection how many integral places there will be in the quotient of .01376549 divided by .000736591. (b) How many significant figures of the divisor is it necessary to consider in determining this result? (c) How many significant figures of the dividend? (d) Why?

4. Express in the form of a couplet the relation shown by each of the following:— (a) $35 \div 16$; (b) $\frac{7}{9}$; (c) .19; (d) 43.

5. The factors of the dividend are 16, 5 1-2, 3 1-7, 28, and 4.5, and the factors of the divisor are 1 3-5, 4 1-2, 121, and 6 2-3. Find the quotient by cancellation.

6. From 1 mi. 260 rd. 1 yd. 2 ft. subtract 305 3-4 rd.

7. On a hypotenuse 6 feet long it is desired to construct a right-angled triangle whose perpendicular and base are equal. Find the length of the base.
8. The difference in interest between a \$600 loan at 6 per cent. per annum and a \$750 loan at 5 per cent. per annum, for the same time is \$1.05. Find the time.
9. An article listed at \$25 and bought subject to trade discounts of 20 per cent. 10 per cent. and 5 per cent., was sold for \$22.23. Required the per cent. of gain on the investment.
10. A speculator purchased 100 shares of Adams Express stock at 150, brokerage 1-8 per cent., held the shares until a quarterly dividend of 2 per cent. was declared and received, and then sold at 149 1-8, brokerage 1-8 per cent. How much was his gain by the transaction?

AMERICAN HISTORY

1. Was the general shape and extent of North America or of South America first discovered by the early navigators? State facts to support the answer.
2. (a) What was the origin of the name Louisiana? (b) Give some idea of the extent of territory to which that name was originally applied.
3. Give an account of Sir William Johnson, noting (a) his place of residence; (b) his relations with the Indians; (c) his services in the French and Indian war.
4. (a) What office was held by Hamilton in Washington's administration? (b) Mention a public policy or enactment attributed to Hamilton.
5. Give an account of the panic of 1837, noting (a) its cause; (b) some circumstances of its severity, and (c) its effect on the election of 1840.
6. In the dispute with England concerning the Oregon territory, the United States claimed the land lying between the former Spanish line of 42 degrees and 54 degrees, 40 seconds, the Russian line. What boundary line was finally established, and by what means was the dispute settled?
7. Give an account of the Mason and Slidell affair, noting the mission of the men, the incidents of their capture, and the reason for their release.
8. (a) By what means were the slaves of the rebellious portions of the United States made free in 1863? (b) What action was taken that prevents the holding of slaves in that territory now?
9. Among the notable American writers of the last half century are Parkman, Motley, Emerson, Holmes, and Whittier. State the character of the works of any four of the five mentioned persons.
10. Among the leading governors of this State were George Clinton, William L. Marcy, William H. Seward, Silas Wright, Horatio Seymour, Edwin D. Morgan, Samuel J. Tilden. Mention some distinguishing public act or service of any three of the seven mentioned persons.

GEOLOGY

1. Explain how the rock formation of a section affects the soil.
2. Describe granite (a) as to constituents, (b) as to physical characteristics.
3. Name three periods of Paleozoic time and the characteristic rock of each period.
4. Compare igneous and sedimentary rock, (a) as to structure, (b) as to relative position.
5. Describe the Palisades as to (a) kind of rock, (b) structure, (c) in what age were they formed?
6. (a) State a reason in support of the theory that the interior of the earth is liquid, and one in support of the theory that it is essentially solid. (b) State two respects in which the crust of the earth differs from the interior.
7. Mention two ways by which the ages and periods of stratified rock are determined.
8. Define the following terms: (a) fossil, (b) outcrop, (c) fault, (d) dip, (e) metamorphism.
9. Name three characteristic plants of the Carboniferous age.
10. State two characteristic features of the animal life of Mesozoic time.

CHEMISTRY

1. How may the composition of water be shown (a) analytically; (b) synthetically?
2. Give the name, chemical symbol, atomic weight (combining number), of five elementary substances.
3. Give the formulas of three substances formed in burning an ordinary friction match.
4. (a) What substance is frequently found deposited in a tea-kettle? (b and c) Give two reasons for such deposits.
5. (a) What is ozone? (b) How may it be produced? (c) Give one of its properties.
6. Give the reaction (equation) representing the preparation of muriatic acid (when using common salt); or of carbon dioxide.
7. (a) Illustrate by the combinations of sulphur and oxygen what terminations *ic* and *ous* indicate in the names of acids. (b) What are the terminations of salts corresponding to acids having these terminations?
8. State how to prepare any three of the following (a) hydrogen; (b) ammonia; (c) nitrous oxide (laughing gas); (d) sulphuretted hydrogen; (e) oxygen. (Select three and only three.)
9. Give three properties of aluminum which make it especially valuable in the arts. Name a substance of which it is a constituent.
10. What is meant by the following terms as used in chemistry: (a) sublimation; (b) precipitation; (c) efflorescence; (d) deliquescence; (e) saturated solution.

COMPOSITION AND RHETORIC

1. Tell whether purity, propriety, or precision is violated in each of the following sentences, and correct each:
 - (a) He is mistaken in his conclusions.
 - (b) Several circumstances seem to militate against the idea.
 - (c) A glance at the clock will make you conscious that it is time to say good night.
 - (d) His manner is calculated to hinder his business.
 - (e) Every man, woman, and child were closely scrutinized.
2. Distinguish between tautology and redundancy.
3. Rewrite the following expressions to make them stronger:
 - (a) If men of eminence receive reproaches which they do not deserve, they likewise receive praises which are not due them.
 - (b) She would not be human, if the tears did not start unbidden in her eyes as she turns back the pages of her life.
 - (c) True liberty can exist only when justice is equally administered to the rich and the poor.
 - (d) He had then been false to his God, to his conscience, and to his mother.
4. Write the following sentences with the figurative language underscored, and name the figure used:
 - (a) The silent grave mingles the dust of enemies.
 - (b) She was an outcast without the protection of a father's roof.
 - (c) If when young you forget not God, when old He will not forget you.
 - (d) Analysis is the death of sentiment.
 - (e) The waves rolled mountains high.
5.
 - (1) " See, as I linger here, the sun grows low;
 - (2) Cool airs are murmuring that the night is near.
 - (3) O, gentle sleeper, from thy grave I go
 - (4) Consoled though sad, in hope and yet in fear.
 - (5) Brief is the time I know,
 - (6) The warfare scarce begun;
 - (7) Yet all may win the triumphs thou hast won.
 - (8) Still flows the fount whose waters strengthened thee,
 - (9) The victors' names are yet too few to fill
 - (10) Heaven's mighty roll; the glorious armory,
 - (11) That ministered to thee, is open still."

(a) Of which kind of poetry (epic, dramatic, lyric, or didactic) is the above selection an example? (b) Scan the first six lines, and tell the kind of verse. Call attention to all irregular feet in those lines. (c) Justify the use of the commas in lines 1, 3, 5, 8, 10, and 11; also the use of the semi-colon in line 6.

6. Classify the following sentences as periodic, loose or balanced, and change one loose sentence to a periodic sentence:

(a) A rumor does not always prove a fact, nor do facts always prove a theory.

(b) The waves rolled over his head and threatened to drown him, but he reached the shore in safety. (c) I shall not vote for this measure unless it is clearly constitutional. (d) If a doubt remains in the mind of any member, let him examine the trade statistics of the past year. (e) A wise son maketh a glad father, but a foolish son maketh a sorrowful mother.

7. Contract the following into simple sentences:

(a) The place is valuable because it is near the town. (b) People who have just been frost bitten should keep away from the stove. (c) He ran so carelessly that he fell.

Change the following into complex sentences:

(d) Never step from a moving street car. (e) He was born of protestant parents, but died a catholic. (f) The lowering sky had brought the promised storm. (g) A surprised look came over his face.

8. Prepare an outline, or scheme, for an essay on one of the following topics: "The telephone;" "Extremes should be avoided;" "The value of character."

9-10. Write an essay (not less than 150 words) following the outline prepared as directed in question 8.

ALGEBRA

1. (a) Is $4a + 1$ an even or an odd number when a is an integer? Give a reason for the answer. (b) In how many days can m men do as much work as n men can do in d days? (c) At p cents a yard, how much will it cost to plaster the four walls of a room a feet wide and b feet long, c feet high?

2. (a) Multiply $2a^4 - 3a^3b - 5a^2b^2$ by $a^3 - 2a^2b + 3ab^2$. (b) Divide $2a^{3n} - 6a^{2n}b^n + 6a^n b^{2n} - 2b^{3n}$ by $a^n - b^n$.

3. Find the prime factors of (a) $5x^2 + 7x + 2$; (b) $c^3d^3 - c^2 - a^2c^2d^3 + a^2$; (c) $x^4 - 1$.

4. Multiply $m + \frac{mn}{m-n}$ by $n - \frac{mn}{m+n}$.

5. Simplify the complex fraction $1 - \frac{1}{1 + \frac{1}{a-2}}$.

6. (a) $b(2x - a) - a^2 = 2x(a + b) - 3ab$. Solve for the value of

$$(b) \begin{cases} \frac{x+2y}{x-2} = -5\frac{1}{2} \\ \frac{2y-4x}{3} = -6 \end{cases} \text{ Solve for the values of } x \text{ and } y$$

7. $\begin{cases} 2x + 3y = 16 \\ 4x^2 - xy = 80 \end{cases}$ Solve for the values of x and y .

8. (a) Write the first, second and last terms of the expansion of $(2a-b)^n$. How many terms are there in the complete result? (b) Extract the square root of $16x^4 - 24x^3y + 25x^2y^2 - 12xy^3 + 4y^4$.

9. A regiment of soldiers consisting of 1,066 men forms into two squares, one of which has four more men in a side than the other. What number of men are in a side in each of the squares?

10. (a) Divide $(x^{\frac{1}{2}})^{-\frac{1}{2}}$ by $(x^{\frac{1}{2}})^2$. (b) Multiply $\sqrt{2} - \sqrt{3}$ by $\sqrt{3} + \sqrt{2}$ (c) Write with radical sign and positive exponent $\frac{2}{a - \frac{3}{4}}$.

GENERAL LITERATURE

1. (a) In what two scenes, or places, is the play Othello laid? (b) Describe that part of the plot which accounts for the removal of the characters to scene II.
2. Discuss the character of Iago and account for his hatred of Othello and Cassio.
3. Note marked characteristics of (a) Othello, (b) Desdemona, (c) Emilia.
4. Outline briefly the historical foundation on which the tale of Evangeline rests, locating the scene.
5. Trace briefly the wanderings of Evangeline after leaving Acadia.
6. (a) In what measure is the poem Evangeline written? (b) Name two classics in which the same measure is used. (c) What translation by Longfellow is regarded as possessing marked literary merit?
7. (a) Upon what is the poem Hiawatha based? (b) Name the three chief characters of the poem. (c) Give an account of Hiawatha's hunting.
8. State approximately the time of Scott's literary work and, briefly, important events of his life.
9. In what country, in what century, and with what two prominent historical characters as actors is the novel Quentin Durward laid?
10. Give in brief outlines the story.

GEOGRAPHY

1. (a) Define ecliptic. (b) If the torrid zone were 25 degrees wide, what would be the width of each of the temperate zones? (c) What would be the inclination of the earth's axis?
2. (a) Distinguish between local and standard time. (b) By how much does the standard time of New York and San Francisco differ?
3. (a) Mention in order the waters on which one would sail in going from Hamburg to Venice. (b) Name five large seaports on this route.
4. (a) Name four large rivers rising in the Alps. (b) State through what countries and into what seas each flows.
5. Name and locate the capital, the metropolis, and an important seaport of (a) Russia, (b) Turkey, (c) Portugal, (d) Egypt.
6. Where and what is each of the following: (a) Ceylon, (b) Tokio, (c) Dardanelles, (d) Memphremagog, (e) Etna?
7. (a) Name four canals of New York. (b) State what waters each connects.
8. (a) Name in order the countries of South America which border on Brazil. (b) Name three chief exports of Brazil.
9. Locate the following cities and mention an important fact about each: (a) Lynn, (b) Lyons, (c) Odessa, (d) Glasgow, (e) Cologne.
10. (a) State three natural causes which have contributed to the prosperity of Great Britain. (b) Name and locate five important British possessions.

METHODS AND SCHOOL ECONOMY

1. Distinguish between natural and artificial school incentives.
2. Show how the rule may be derived for finding difference in time when difference in longitude is given.
3. Give an explanation of the two methods of proceeding, when the figure in the subtrahend is greater than the corresponding figure in the minuend.
4. Name in order the three kinds of education that will, respectively, promote health, diminish ignorance, and lessen crime.
5. Suggest a method of conducting a spelling recitation as to manner of (a) spelling, (b) criticism, (c) correction.
6. What dangers are to be avoided in teaching the effects of alcoholic stimulants and narcotics?
7. What should be the standard of good reading?

8. Outline a language lesson in which the imagination is largely used.
9. What caution should be observed in the use of newspapers in school?
10. Suggest some experiment for finding the complementary color of any one of the positive spectrum colors.

ORTHOGRAPHY

Each of the following words has two credits assigned to it.

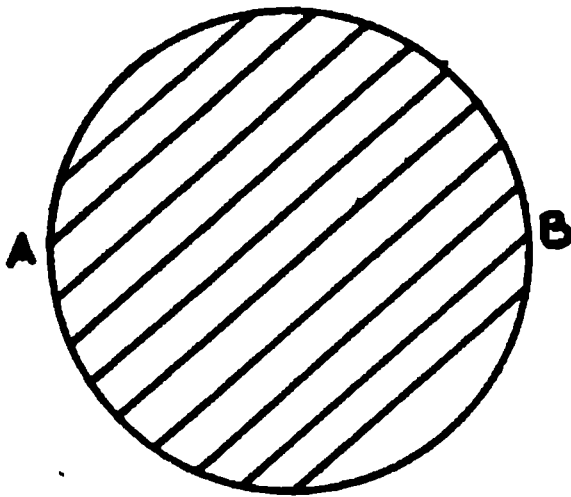
- | | |
|-------------------|------------------------|
| 1. pellucid. | 26. penciled. |
| 2. resuscitate. | 27. nuisance. |
| 3. twingeing. | 28. controlled. |
| 4. fiduciary. | 29. furlough. |
| 5. gaseous. | 30. cemetery. |
| 6. comparable. | 31. salable. |
| 7. repartee. | 32. inseparable. |
| 8. Schenectady. | 33. Worcester. |
| 9. yearling. | 34. bankruptcy. |
| 10. trolley. | 35. fulfil. |
| 11. concourse. | 36. strychnine. |
| 12. silica. | 37. Corning. |
| 13. magnesian. | 38. loose. |
| 14. bronchitis. | 39. disparaging. |
| 15. polytechnic. | 40. quilts. |
| 16. partially. | 41. conscientious. |
| 17. avaricious. | 42. bowlder (a stone). |
| 18. punctilious. | 43. fulminate. |
| 19. Chautauqua. | 44. collusion. |
| 20. Isalah. | 45. inexpressibly. |
| 21. privilege. | 46. aeronaut. |
| 22. travesty. | 47. labyrinths. |
| 23. nomenclature. | 48. magnanimity. |
| 24. millionaire. | 49. adequacy. |
| 25. procedure. | 50. inkling. |

PHYSICS

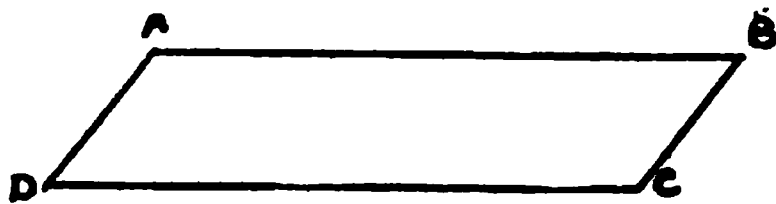
1. Define (a) matter, (b) a physical change. (c) Give an example of a physical change.
2. Distinguish between a solid and a liquid.
3. A vessel containing pure water at 45 degrees F. is exposed to an atmosphere of 32 degrees F. State (a) what movements take place; (b) what changes in volume take place; (c) at what temperature does water have its greatest density?
4. What is osmose? Give an example.
5. (a) What is the cause of sound? (b) What is the commonly accepted theory of light?
6. Upon what two properties of the medium through which sound is transmitted does its velocity depend?
7. (a) Why is the flame of an ordinary gas jet highly luminous, while (b) similar gas burned in a Bunsen burner produces but little light?
8. T rails for railroads as they come from the rolling mill red hot, are nearly straight; soon after beginning to cool they became decidedly curved, but when cold they again become straight. (a) In which direction do they curve? (b) Why do they curve? (c) Why do they straighten?
9. (a) Give the approximate velocity of light. (b) What is the law relating to the intensity of lights at different distances from the source?
10. (a) How may mechanical motion be converted into heat? (b) How may electricity be converted into heat?

GEOMETRY

1. Demonstrate: If from any point within a triangle two straight lines be drawn to the extremities of any side, their sum will be less than the sum of the two remaining sides of the triangle.
- 2-3. State the proposition concerning the measure of an inscribed angle. Demonstrate the proposition when one side of the angle is a diameter. State the other possible cases of this proposition.
- 4-5. State and demonstrate the proposition concerning the area of a parallelogram.
6. Through a given point without a given straight line, to draw a parallel to that line. Give construction and proof.
7. To divide a given straight line into any number of equal parts. Give construction and proof.
8. If the side of a regular inscribed hexagon is 24, what is the length of an arc of 80 degrees of the circumscribing circle? (b) Two secants intersecting without a circumference and forming an angle of 39 degrees, intercept two arcs on the circumference, one of which is a quadrant; what is the value of the other arc?
9. (a) The chords in the circle A B are a system of parallel chords. What is the locus of their middle points? (b) The three sides of a triangle are 4, 5 and 8; the shortest



side of a similar triangle is 10; what are the other sides? (c) In the parallelogram A, B, C, D angle A is 119 degrees. How many degrees are there in each of the other angles?



10. Define (a) oblique angle, (b) regular polygon, (c) corollary, (d) octagon, (e) a variable quantity.

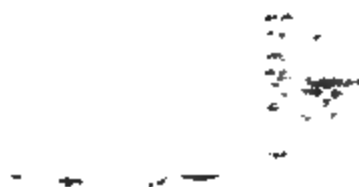
DRAWING

1. (a) Explain how red-violet is produced, starting from positive color. (b) Explain how to change this hue to a shade of the same.
2. (a) In parallel perspective, a line is to be drawn to represent a horizontal receding edge to the left and on a level with the eye; (b) in parallel perspective, a line is to be drawn to represent a horizontal receding edge below and to the right of the eye, with a point to indicate the center of vision: represent the lines above described.

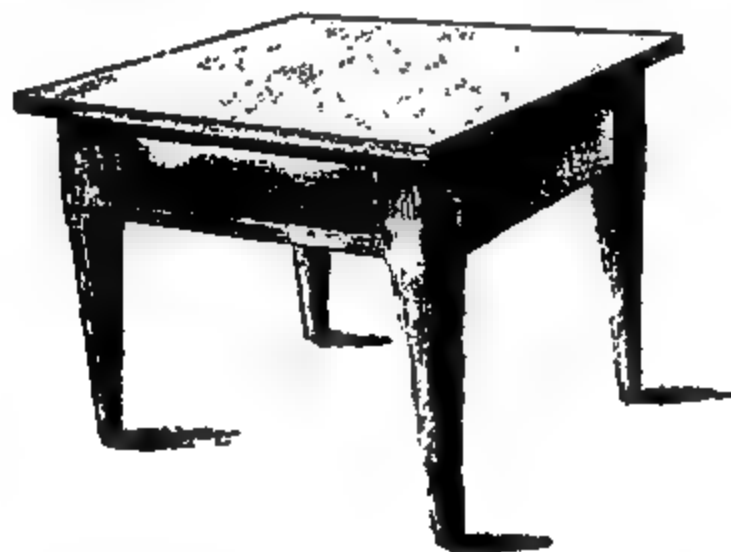
3. Copy outline given and finish to represent an ordinary telescope traveling bag; add straps and handle.



4. Make such modifications of the sketch here given as shall represent a wooden spoon with handle.



5. (a) In perspective, what is the measuring point? (b) From what point in the picture is the measure taken to locate the measuring point? (c) What determines this measure?
6. Copy or trace the outlines of the sketch given; use dotted lines to prove the perspective; designate the vanishing points and eye level, and modify to represent the drawer as partly open.



7. On a scale of 1 inch to the foot, make a working drawing of a rectangular box 3 feet 6 inches by 2 feet by 1 foot 6 inches, made of 1-inch lumber.

8. Draw a pattern of the pan represented in the sketch; dimensions same as marked thereon.



9. Conventionalize blossom and two buds

10. The examiner will place an object from which a sketch is to be made. Dimensions equivalent to 3 inches by 2 inches are required.

BOTANY

1. Define (a) habitat; (b) spores; (c) tuber; (d) pollination, (e) pericarp.
2. (a) Why are the stamens and the pistils called the essential parts of a flower? What is the common numerical plan of (b) monocotyledons; (c) dicotyledons?
3. What special provision has been made for the distribution of the seeds of (a) the dandelion, (b) the maple; (c) the burdock; (d) the raspberry?
4. Of what use in the growth of a plant is (a) chlorophyl, (b) cellulose?
5. Mention (a) two functions of roots; (b) three of leaves.
6. Why are the flowers of the trillium said to be perfect and complete, and the flowers of the geranium irregular and unsymmetrical?
7. (a) Compare a horizontal cross section of the stem of a palm with that of an elm. (b) To what classification do their peculiarities lead?
8. What part or parts of flowers develop into (a) fruit; (b) seeds? (c) Under what conditions will fruit have no seeds?
9. (a) Compare the root of timothy with that of red clover. (b) Why is red clover useful as a means of restoring exhausted lands?
10. (a) To what order or family does the apple belong? (b) Mention two of the chief characteristics of this order. (c) Mention three other plants of the same order.

BOOKKEEPING

1. Define (a) real accounts; (b) assets; (c) inventory; (d) present worth.

Memoranda.— Emmett K. Hall, of Tonawanda, N. Y., commenced business as a dealer in lumber January 2, 1896, with a cash capital of \$12,000, and transacted business as follows: Jan. 3.— Bought of Samuel Fitch, for cash, 160,000 feet of pine lumber at \$20.75 a thousand, 80,000 pine shingles at \$3.10 a thousand, 30,000 hemlock shingles at \$1.90 a thousand, and 45,000 feet of hemlock scantling at \$12.25 a thousand. Jan. 4.— Bought of Foster Bros., for cash, 70,000 feet of pine plank at \$21 a thousand, and 90,000 feet of hemlock joists at \$12 a thousand. Jan. 6.— Sold A. K. Wilson, on account, 7,000 feet of pine lumber at \$26 a thousand, 14,000 pine shingles at \$3.70 a thousand, and 1,500 feet of scantling at \$16.50 a thousand. Jan. 7.— Bought of Stephen Coyle, on account, 52,000 feet of matched flooring at \$23.50 a thousand. Jan. 8.— Sold Samuel R. Finch, on his note for two months, payable at the First National Bank of Tonawanda, bill of lumber amounting to \$519.50. Jan. 9.— Paid James Garrison for cartage; by check on First National Bank of Tonawanda, \$68.40; also wages to employes, \$65. Jan. 10.—Sold Henry Wyatt, 8,500 hemlock shingles at \$2.40 a thousand, 4,600 feet of joists at \$16 a thousand, and 19,000 feet of pine lumber at \$25.50 a thousand, receiving \$300 in part payment, the balance being charged to account. Jan. 26.— Paid Stephen Coyle, on account, \$750; and discounted at bank note given by Samuel R. Finch.

Journalize (books of Emmett K. Hall), using proper abbreviations and conventions:

- 2. The transactions of January 2d, 3d, and 4th.
- 3. The transactions of January 6th, 7th, and 8th.
- 4. The transactions of January 9th and 10th.
- 5. The transactions of January 26th.
- 6. Post the journal entries.
- 7. (a) Write the note mentioned in transaction of January 8th; (b) show indorsement necessary in transaction of January 20th.
- 8. (a) Write the check mentioned in transaction of January 9th; (b) write an indorsement in full transferring the check to John A. Symonds.
- 9. Make a trial balance of ledger differences.
- 10. Interpret the following entries in the journal of B. A. Wood:

(a) Cash.	to sundries.....	540			
	oats			275	50
	feed			264	50
(b) Sundries, to	flour.....			1850	75
	cash.....	1000			
	Cornwell Bros	350	75		

PHYSIOLOGY AND HYGIENE

- 1. What specific name is applied to the class of joints represented by the articulation of (a) the humerus and the ulna; (b) the femur and the innominate bone; (c) the frontal and the parietal bones?
- 2. What is meant by " the function of accommodation " as applied to the crystalline lens?
- 3. Mention three facts relating to the action of the heart that are indicated to the physician by the action of the pulse.
- 4. Why does a person usually perspire more freely when exercising vigorously?
- 5. Mention the two kinds of nerve tissue and state the function of each.
- 6. Sometimes persons in feeble health are bathed with alcohol. (a) State the purpose of this kind of bath; and (b) mention the function of the skin most employed in accomplishing it.

7. When the kidneys are diseased so that they are unable to discharge their function, why do physicians seek to relieve the system by inducing active perspiration?
8. Why do certain trades or vocations predispose to pulmonary disease?
9. How may artificial respiration be produced in persons almost drowned?
10. What is meant by "fatty degeneration" as produced by alcohol?

GENERAL HISTORY

1. (a) Into what two kingdoms were the twelve tribes of the Hebrews divided? (b) Mention a result of this division of the nation.
2. (a) What European countries did Julius Caesar conquer? (b) What powers did Caesar assume after his triumph over Pompey? (c) What was the form of government at Rome after the death of Caesar?
3. What was the principal effect upon the English nation produced by (a) the Norman conquest, (b) the destruction of the Spanish Armada, (c) the Revolution of 1688? Select for answer any two of the three mentioned events.
4. (a) Of what country was each of the following ruler: Peter the Great, Gustavus Adolphus, Frederick the Great? (b) Note briefly the principal events in the life of any one of the three mentioned men.
5. From the following list of names designate two orators, two religious leaders, two philosophers, two generals, two poets: Blücher, Calvin, Cicero, Confucius, Dante, Demosthenes, Descartes, Hannibal, Kant, Mirabeau, Socrates, Virgil, Von Moltke, Wesley, Wadsworth.

FRANCE IN THE EIGHTEENTH AND NINETEENTH CENTURIES

6. What loss of territory in America and elsewhere did France sustain as a result of the seven years (French and Indian) war?
7. Give a brief account of Louis XVI, mentioning his personal characteristics, his qualities as a ruler, the circumstances of his death, the condition of France under his rule.
8. Give an account of the movements of Napoleon during "The Hundred Days."
9. What was the manner of the establishment and of the downfall of the second empire?
10. In what branch of learning or literature or for what public services is each of the following noted: Buffon, Laplace, Guizot, Madam de Staël, Victor Hugo? Select for answer any three of the five mentioned names.

ZOOLOGY

1. How many kinds of honey bees are hatched in the same hive? Give names and sex of each.
2. (a) Define exoskeleton, endoskeleton. (b) Name three different animals that are exoskeletal.
3. What is the significance of each of the following terms: (a) ungulate; (b) plantigrade; (c) digitigrade; (d) gastropod.
4. (a) Name three chief characteristics of the group Crustacea. (b) Name two different animals of this group.
5. Give adaptation to habit in the structure of (a) the giraffe; (b) the mole.
6. Contrast the heart of a reptile with that of a mammal as to (a) number of cavities; (b) kind of blood in each.
7. "*A black bear is a carnivorous mammal.*" According to zoölogical classification what is indicated by the italicized words.
8. Give the four stages in the complete metamorphosis of an insect.
9. Name an animal which has (a) five toes, (b) four toes, (c) three toes, (d) two toes, (e) one toe.
10. (a) What are hibernating mammals? (b) How is life sustained during hibernation? (c) Name two animals of New York that belong to this class.

ASTRONOMY

1. Define (a) aphellion; (b) ecliptic; (c) spectra; (d) declination; (e) milky way.
2. What constitutes the solar system?
3. Mention a planet which, as it revolves in its orbit, is frequently in (a) opposition; (b) inferior conjunction. Mention a body that is sometimes in opposition and sometimes in inferior conjunction. Show that your answers are correct.
4. How many times annually does the moon revolve about (a) the earth; (b) the sun? (c) What is the inclination of the moon's orbit to the plane of the ecliptic?
5. What causes the sun to run high toward the zenith in the summer, and low toward the southern horizon in winter?
6. State Newton's law of gravitation, and underscore the words that partly account for the fact that the sun, though a greater body, influences the tides less than the moon.
7. (a) In what part of the solar system are asteroids found? (b) Give a theory explaining the origin of these bodies. (c) State approximately the number of asteroids now discovered.
8. (a) How does the eclipse of the moon afford a proof that the earth is round? (b) Under what conditions will there be a total eclipse of the sun?
9. (a) Give the causes which led to making one year in four a leap year. (b) Why does not solar time always agree with clock time (mean solar time)?
10. (a) In what constellation is Polaris? (b) What causes the northern circumpolar constellations to appear to revolve around Polaris?

LATIN

1 Ubi jam se ad eam rem paratos esse arbitrati sunt, oppida sua omnia
 2 numero ad duodecim, vicos ad quadringentos, reliqua privata aedificia
 3 incendunt; frumentum omne, praeterquam quod secum portaturi erant,
 4 comburunt, ut, domum reditionis spe sublata, paratiores ad omnia pericula
 5 subeunda essent.

6 Ad haec Caesar respondit: Se magis consuetudine sua quam merito eorum
 7 civitatem conservaturum, si prius quam murum aries attigisset, se dedi-
 8 dissent; sed deditionis nullam esse conditionem, nisi armis traditis. Se
 9 id, quod in Nervili fecisset, facturum finitimisque imperaturum, ne quam
 10 dediticilis populi Romani injuriam inferrent.

11 Hac re perspecta, Crassus cum sua cunctatione atque opinione timoris
 12 hostes nostros milites alacriores ad pugnandum effecissent, atque omnium
 13 voces audirentur, expectari diutius non oportere, quin ad castra iretur,
 14 corhortatus suos, omnibus cupientibus, ad hostium castra contendit.

- 1-3. Translate the above selection.
4. Give the case of each of the following, and state the reason for the same: (a) domum (line 4); (b) pericula (line 4); (c) se (line 7); (d) opinione (line 11); (e) omnibus (line 14).
5. Give reason for mode of (a) attigisset (line 7); (b) effecissent (line 12). (c) Account for change of tense from effecissent to audirentur.
6. (a) Select three infinitives, (b) giving the voice and tense of each. (c) State how each one is used in the special example given.
7. Give the principal parts of each of the following: (a) poposcit; (b) sublata; (c) comburunt; (d) attigisset; (e) peterent.
8. Distinguish between the use of (a) ac; (b) atque; and (c) que.
9. Decline (a) domum (line 4); (b) id (line 9); (c) conjugate the indicative present of respondit (line 6).
10. Write a sentence illustrating purpose expressed (a) by a relative clause; (b) by a supine.

FRENCH

Translate:

LE CHANT DES OISEAUX

1-7. La nature a ses tempes de solennité pour lesquels elle convoque des musiciens des différentes régions du globe.

On voit accourir de savants artistes avec des sonates merveilleuses, de vagabonds troubadours qui ne savent chanter que des ballades à refrain, des pèlerins qui répètent mille fois les couplets de leurs longs cantiques.

Le loriot siffle, l'hirondelle gazouille, le ramier gémit; le premier, perché sur la plus haute branche d'un ormeau, défie notre merle, qui ne le cède en rien à cet étranger; — la seconde, sous un toit hospitalier, fait entendre son ramage confus ainsi qu'au temps d'Evandre; — le troisième, caché sous le feuillage d'un chêne, prolonge ses doux roucoulements, semblables aux sons onduleux d'un cor dans les bois; enfin, le rouge-gorge répète sa petite chanson sur la porte de la grange où il a pacé son gros nid de mousse.

Mais le rossignol dédaigne de perdre sa voix au milieu de cette symphonie; il attend l'heure du recueillement et du repos, et se charge de cette partie de la fête qui se doit célébrer dans les ombres.

Lorsque les premiers silences de la nuit et les derniers murmures du jour luttent sur les coteaux, au bord des fleuves, dans les bois et dans les vallées: lorsque les forêts se taisent par degrés, que pas une feuille, pas une mousse ne soupire, que la lune est dans le ciel, que l'oreille de l'homme est attentive, le premier chantre de la Création entonne ses hymnes à l'Eternel.

D'abord il frappe l'écho des brillants éclats du plaisir; le désordre est dans ses chants: il saute du grave à l'aigu, du doux au fort; il fait des pauses; il est lent, il est vif: c'est un coeur que la joie enivre. Mais tout à coup la voix tombe, l'oiseau se tait.

Il recommence. Que ses accents sont changés! quelle tendre mélodie! Tantôt ce sont des modulations languissantes quoique variées; tantôt c'est un air un peu monotone, comme celui de ces vieilles romances françaises, chefs d'oeuvre de simplicité et de mélancolie.

Le chant est aussi souvent la marque de la tristesse que de la joie; l'oiseau qui a perdu ses petits chante encore; c'est encore l'air du temps du bonheur qu'il redit, car il n'en sait qu'un: mais, par un coup de son art, le musicien n'a fait que changer la clef et la cantate du plaisir est devenue la complainte de la douleur.

Ceux qui cherchent à déshériter l'homme, à lui orracher l'empire de la nature, voudraient bien prouver que rien n'est fait pour nous. Or, le chant des oiseaux, par exemple, est tellement commandé pour notre oreille, qu'on a beau persécuter les hôtes des bois, ravir leurs nids, les poursuivre, les blesser avec des armes et des pièges, on peut les remplir de douleur, mais on ne peut les forcer au silence. En dépit de nous, il faut qu'ils accomplissent l'ordre de la Providence.

Génie de christianisme.

Translate:

FRIENDSHIP AMONG ANIMALS

8-9. It is generally supposed that when wild animals of different kinds meet it is a natural instinct for them to rush at each other and fight till one of them has fallen. But there are a great many cases where Platonic friendships exist between the fiercest beasts. They often do favors for one another in the most friendly spirit.

SUMMER

Sun, to-day is thy feast day!

Arise, shed thy light,

Shine, triumph before all eyes;

Pursue night in her career

And drive from the throne of heavens

Her pale and trembling messenger.

10. Give a brief biographical sketch of any two of the following: Chateaubriand; Hugo; Balzac; Fenelon; Voltaire.

GERMAN

1-5. Translate :

DAS CHAMOUNITHAL.

Chamouni, den 4. November, Abends gegen Neun.

Nur dass ich mit diesem Blatt Ihnen um so viel näher rücken kann, nehme ich die Feder; sonst wäre es besser, meine Geister ruhen zu lassen. Wir liessen Salenche in einem schönen, offenen Thale hinter uns, der Himmel hatte sich während unserer Mittagrast mit weissen Schäfchen überzogen, von denen ich hier eine besondere Anmerkung machen muss. Wir haben sie so schön und noch schöner an einem heitern Tage von den Berner Eisbergen aufsteigen sehen. Auch hier schien es uns wieder so, als wenn die Sonne die leisesten Ausdünstungen von den höchsten Schneegebirgen gegen sich aufzöge, und diese ganz feine Dünste von einer leichten Luft, wie eine Schaumwolle, durch die Atmosphäre gekämmt würden. Ich erinnere mich nie in den höchsten Sommertagen bei uns, wo dergleichen Luftercheinungen auch vorkommen, etwas so Durchsichtiges, Lichtgewobenes gesehen zu haben. Schon sahen wir die Schneegebirge, von denen sie aufsteigen, vor uns, das Thal fing an zu stocken, die Arve schoss aus einer Felsenklüft hervor, wir mussten einen Berg hinan, und wandten uns, die Schneeberge rechts vor uns, immer höher. Abwechselnde Berge, alte Fichtenwälder zeigten sich uns rechts, theils in der Tiefe, theils in gleicher Höhe mit uns. Links über uns waren die Berge kahl und spitzig. Wir fühlten, dass wir einem stärkern und mächtign Satz von Bergen immernäher rückten. Wir kamen über ein breites trocknes Bett von Kieseln und Steinen, das die Wasserfluthen die Länge des Berges hinab zerreißen und wieder füllen; von da in ein sehr angenehmes, rundgeschlossenes flaches Thal, worin das Dörfchen Servos liegt. Von da geht der Weg um einige sehr bunte Felsen wieder gegen die Arve. Wenn man über sie weg ist, steigt man einen Berg hinan, die Massen werden immer grösser, die Natur hat hier mit sachter Hand das Ungeheure zu bereiten angefangen. Es wurde dunkler, wir kamen dem Thale Chamouni näher und endlich darein. Nur die grossen Massen waren uns sichtbar. Die Sterne gingen nach einander auf, und wir bemerkten über den Gipfeln der Berge, rechts vor uns, ein Licht, das wir nicht erklären konnten. Hell, ohne Glanz, wie die Milchstrasse, doch dichter, fast wie die Plejaden, nur grösser, unterhielt es lange unsere Aufmerksamkeit, bis es endlich, da wir unsern Standpunkt änderten, wie eine Pyramide, von einem innern geheimnissvollen Lichte durchzogen, das dem Schein eines Johanniswurmes am besten verglichen werden kann, über den Gipfeln aller Berge hervorragte und, uns gewiss machte, dass es der Gipfel des Montblanc war. Es war die Schönheit dieses Anblicks ganz ausserordentlich; denn da er mit den Sternen, die um ihn herum standen, zwar nicht in gleich raschem Licht, doch in einer breitem zusammenhängendern Masse leuchtete, so schien er den Augen zu einer höhern Sphäre zu gehören, und man hatte Mühe, in Gedanken seine Wurzeln wieder an die Erde zu befestigen.

von Göthe

DER VATER UND DIE DREI SOEHNE.

An Jahren alt, an Gütern reich
 'Theilt' einst ein Vater sein Vermögen
 Und den mit Müh' erworbnen Segen
 Selbst unter die drei Söhne gleich.
 „Ein Diamant ist's,“ sprach der Alte,
 „Den ich für den von euch behalte,
 Der mittelst einer edlen That
 Darauf den grössten Anspruch hat.“

Um diesen Anspruch zu erlangen,
 Sieht man die Söhne sich zerstreun,
 Drei Monden waren kaum vergangen,
 Da stellten sie sich wieder ein.

Drauf sprach der älteste der Brüder :
„ Hörst, es vertraut' ein fremder Mann
Sein Gut ohn' einen Schein mir an ;
Dem gab ich es getreulich wieder.
Sagt, war die That nicht lobenswerth ! “—
„ Du thatst, mein Sohn, was sich gehört,“
Lliess sich der Vater hier vernehmen,
„ Wer anders thut, der muss sich shämen ;
Denn ehrlich sein heisst uns die Pflicht,
Die That ist gut, doch edel nicht. “

Der zweite sprach : „ Auf meiner Reise
Fiel einstmals unachtsamer Weise
Ein armes Kind in einen See
Ich stürzt' ihm nach, zog's in die Höh'
Und rettete dem Kind das Leben.
Ein Dorf kann davon Zeugniss geben. “—
„ Du thatest,“ sprach der Greis, „ mein Kind,
Was wir als Menschen schuldig sind, “

Der jüngste sprach : „ Bei seinen Schafen
War einst mein Feind fest eingeschlafen
An eines tiefen Abgrunds Rand.
Sein Leben stand in meiner Hand ;
Ich weckt' ihn und zog ihn zurück. “
„ O ! “ rief der Greis mit holdem Blicke,
„ Der Ring ist dein ! Welch edler Muth,
Wenn man dem Feinde Gutes thut ! “

Lichtier

8-9. Translate:

Never before has the National Educational Association been so comfortably and courteously entertained as it was in Buffalo last month. The perfection of entertainment was largely due to the untiring zeal of the city teachers.

10. Give a brief biographical sketch of any two of the following: Goethe; Schiller; Richter; Lessing; Herder.

2. TABULATED STATEMENT OF STATE EXAMINATIONS, 1896

Place	NAME OF EXAMINERS	Number of candi- dates who ap- peared at exam- ination for first time	Number of candi- dates who had previously ap- peared	Total number ex- amined	Number to whom certificates were granted
Albany ..	John J. Gannon	28	19	47	7
Buffalo ..	James M. Cassety	7	14	21	4
Chautauqua ..	P. M. Hull	3	2	5	0
Elmira ..	Secor O. Wiswell	16	7	23	5
Newburgh ..	A. Edson Hall	11	9	20	4
New York ..	Henry R. Sanford	28	22	45	8
Ogdensburgh ..	Barney Whitney	4	7	11	3
Oneonta ..	Grace Bell Latimer	10	12	22	5
Plattsburgh ..	E. N. Jones	2	2	4	1
Rochester ..	John G. Allen	32	12	44	3
Syracuse ..	S. W. Maxson	22	12	34	5
Utica ..	Ellis D. Elwood	20	19	39	6
Watertown ..	Wm. G. Williams	8	9	17	8
		183	144	327	54

3. LIST OF SUCCESSFUL COMPETITORS FOR STATE CERTIFICATES, 1896

Following is a list of persons to whom State certificates were issued during 1896

NAME	County	Post-office address
Adams, Eugene M.....	Niagara.....	Lockport
Anderson, Geo. J.....	Sullivan.....	Hankins
Brinckerhoff, Florence B.....	Ulster.....	Highland
Bowdiah, Luman R.....	Clinton.....	Rouses Point
Bristol, Josephine.....	Dutchess.....	Matteawan
Bradford, Bessie P.....	St. Lawrence.....	Louisville
Barthel, Frederick W.....	Rensselaer.....	Troy
Chapman, Grace E.....	Oneida.....	Oneida
Crider, Winter X.....	Oneida.....	Verona
Case, Hiram O.....	Ontario.....	Allens Hill
Crane, Kate DeF.....	Putnam.....	Brewster
Collins, Frances A.....	Westchester.....	Sing Sing
Callahan, Edward D.....	Kings.....	Brooklyn
Donahue, Ada Y.....	Madison.....	Eaton
Dewey, Jeanette M.....	Broome.....	Binghamton
De Melt, Wm. E.....	Albany.....	South Westerlo
Good, William H.....	Rensselaer.....	Bath-on-the-Hudson
Harris, Flora L. M.....	Genesee.....	Darien
Houston, Virginia M.....	Orange.....	Bellvale
Hollister Margaret C.....	Tompkins.....	Ithaca
Hess, Frank B.....	Schoharie.....	Richmondville
Haydn, Ethel A.....	Jefferson.....	Adams
Kirschner, Julia.....	Rensselaer.....	Troy
Kellogg, Scott W.....	Madison.....	Brookfield
Lockhart, Thomas E.....	Chautauqua.....	Mayville
Lane, Anna.....	Otsego.....	Schenevus
Laidlaw, John B.....	St. Lawrence.....	Fine
Ludlum, Rebecca M.....	Richmond.....	Stapleton
Ladd, Elwin A.....	Genesee.....	Alexander
Murray, Jennie S.....	Erie.....	Springville
Mackey, Sarah W.....	Ulster.....	Ellenville
McNamara, Thomas J.....	Oneida.....	Taberg
Merritt, Annie M.....	Richmond.....	Port Richmond
McCasland, Herbert S.....	Essex.....	Ausable Forks
McAuliffe, Anna E.....	Rensselaer.....	Troy
Neff, Samuel J.....	Lewis.....	Port Leyden
Nichols, Charles E.....	Westchester.....	Mt. Vernon
Noll, William C.....	Ontario.....	Naples
Porter, Murray C.....	Jefferson.....	Rodman
Robertson, Lucy Gertrude.....	Monroe.....	Churchville
Riffenburgh, George L.....	Schoharie.....	Charlotteville
Raymond, Joseph M.....	New York.....	New York
Snyder, Arrietta.....	Orange.....	Newburgh
Shaw, Margaret M.....	Ontario.....	Canandaigua
Springstead, Silas.....	Schoharie.....	Eminence
Swenson, Selma E.....	Queens.....	Flushing
Smith, Mary M.....	Oneida.....	Whitestone
Sargent, Cassius J.....	Jefferson.....	Chaumont
Shaffer, Howard.....	Montgomery.....	St. Johnsville
Tarbell, Roscoe C.....	Tompkins.....	West Groton
Wilson, Myron J.....	Livingston.....	Genesee
Wilson, Gertrude.....	Monroe.....	Rochester
Wallace, Frank H.....	St. Lawrence.....	Madrid
Williams, Dwight B.....	Ontario.....	East Bloomfield

4. STATISTICAL TABLE—STATE CERTIFICATES

The following table shows the number of persons examined, and the number who have passed the examinations since the law was enacted, June 9, 1875, whereby State certificates are granted only upon examination, instead of upon recommendation, as formerly :

YEARS	Number examined	Number passed
1875.....	9	4
1876.....	47	21
1877.....	23*	11
1878.....	27	14
1879.....	46	30
1880.....	47	20
1881.....	84	12
1882.....	30	7
1883.....	63	19
1884.....	71	22
1885.....	111	21
1886.....	126	34
1887.....	130	40
1888.....	376	64
1889.....	300	71
1890.....	250	27
1891.....	223	36
1892.....	182	29
1893.....	167	25
1894.....	199	32
1895.....	235	30
1896.....	327	54
Total .....	.....	623

*Estimated.

5. EXAMINATIONS FOR STATE CERTIFICATES, 1897. CIRCULAR, REGULATIONS, AND PROGRAM

STATE OF NEW YORK

DEPARTMENT OF PUBLIC INSTRUCTION,
SUPERINTENDENT'S OFFICE,
ALBANY, August 24, 1896.

Under the authority of chapter 556 of the Laws of 1894, which provides that State certificates may be granted by the State Superintendent of Public Instruction " only upon examination," and which authorizes the State Superintendent to " appoint times and places for holding such examinations at least once in each year," I have directed that examinations of applicants for State certificates be held on Monday, Tuesday, Wednesday, Thursday and Friday, August 23, 24, 25, 26 and 27, 1897, at the following places:

- Albany.— At High School Building.
- Buffalo.— At Normal School Building.
- Elmira.— At the Academy.
- Newburgh.— At the Newburgh Academy.
- New York.— Grammar School No. 69, No. 125 Fifty-fourth street, between Sixth and Seventh avenues.
- Ogdensburgh.— At the Academy.
- Oneonta.— At Normal School Building.
- Plattsburgh.— At Normal School Building.
- Rochester.— At High School Building.
- Syracuse.— At High School Building.
- Utica.— At High School Building.
- Watertown.— At High School Building.

At the conclusion of the examinations, all papers submitted will be forwarded to this Department. These papers will be carefully examined, and such of the candidates as shall have given satisfactory evidence of their learning, ability, experience and good character, will receive certificates entitling them to teach for life in any of the public schools of the State.

In order to be admitted to the examinations, candidates must have had two years' successful experience in teaching, and must be present at the beginning of the examination.

Subjects for Examination:

GROUP I

Algebra, Arithmetic, American History, Geography, Grammar and Analysis, Orthography, Penmanship, Physiology and Hygiene.

GROUP II

Astronomy, Bookkeeping, Botany, Chemistry, Civil Government and School Law, Composition and Rhetoric, Drawing, General History, General Literature, Geology, Methods and School Economy and Philosophy of Education, Plane Geometry, Physics, Zoölogy.

Note.— Latin through the first three books of Caesar's Commentaries, or the ability to read at sight French or German, written in a plain style, will be accepted in place of Zoölogy or Astronomy.

A standing of at least 75 per cent. is required in each of the subjects of Group I, and an average standing of at least 75 per cent. in the subjects of Group II, but no paper showing a standing of less than 50 per cent. will be considered in this average.

All candidates who attain the required percentage in five or more of the designated subjects, exclusive of Orthography and Penmanship, but not in all, will be credited at this Department for those studies in which they shall have passed, and a partial certificate to that effect will be mailed to each candidate. On passing the required percentage in the remaining designated subjects at any subsequent examinations, held not later than the second year thereafter, they will be entitled to receive State certificates. This gives to candidates opportunity for three distinct yearly trials.

Candidates who have had three trials but have failed to obtain a certificate will forfeit the standings earned on the first trial only. The standings earned on the last two trials will be credited to such candidates, and by completing the work required at the next examination they may receive certificates.

In the Uniform Examinations, School Commissioners will recognize "Partial Certificates," issued not more than five years previously, in all subjects in which candidates have attained 75 per cent.

The examinations will be open to candidates residing in any part of the State, and to such residents of other States as shall declare it to be their intention to teach in this State.

Attention is directed to the following extract from section 10 of title 1 of the Consolidated School Law of 1894, relating to the powers of the State Superintendent of Public Instruction touching this subject: "He may grant under his hand and seal of office a certificate of qualification to teach, and may revoke the same. While unrevoked, such certificate shall be conclusive evidence that the person to whom it was granted is qualified, by moral character, learning and ability, to teach any common school in the State. Such certificate may be granted by him only upon examination. Every such certificate so granted shall be deemed and considered a legal license and authority to teach in any of the public schools of this State without further examination, * * * any provision of law in conflict with this provision to the contrary notwithstanding." There can be no evasion of this law, and no certificate will be granted in any case except in conformity with its provisions.

It is the intention of this Department to make these examinations a thorough test of merit. No "catch questions" will be introduced, but the examinations will be sufficiently rigid to prove the ability of the applicant, to the end that a State certificate when granted shall be the most signal honor that is bestowed upon the progressive teachers of the Commonwealth.

Commissioners, City Superintendents, Academic Principals and Institute Conductors are requested to give all possible publicity to this circular among teachers of their acquaintance who may desire to take this examination, and to invite the co-operation of the press in calling the attention of the public to the dates of the examinations, and to the plans and regulations adopted.

Special Information to Candidates

Candidates should aim to acquire not merely certain facts, but the well-digested knowledge and analytic power that will fit them to guide, criticise, and instruct their pupils successfully.

When explanations are required they should be given with the same clearness, system and thoroughness that a competent teacher would use in instructing a class. All work should be of the best quality. The papers will be criticised as the work of teachers — not as that of mere pupils.

The scope of the examination will correspond to the subject-matter of the ordinary text-books. The following special suggestions are given to emphasize certain points, and to indicate the work required.

Candidates should examine each question with great care and fully answer it, but should write no more than is necessary. Quantity will not be allowed as a substitute for quality.

In Arithmetic, the candidate should be familiar with the analysis of problems and deduction of rules, particularly in the elementary operations, common and decimal fractions, percentage and its applications, ratio and proportion, and mensuration, and should give strict attention to arithmetical theory as well as practice. The composition of problems to illustrate rules or principles may be required.

In Algebra, pay special attention to the laws and signs of exponents, the transformations of equations, factoring, the derivation of rules in the various operations, quadratic equations, radical quantities, proportion, square and cube roots, and the expansion of binomials, with or without numeral or literal, positive or negative coefficients and exponents, by the binomial theorem.

In Geometry, note especially,—(a) general propositions; (b) the solution of arithmetical and algebraic problems involving geometrical principles, particularly in relation to the right-angle triangle, squares, rectangles, circles, areas of similar figures compared, and proportional lines; (c) actual and accurate constructions with dividers and ruler will be required.

In Grammar and Analysis, the definition of terms, parts of speech and their modifications, inflections, rules of syntax, the analysis of sentences, including principal and subordinate clauses and the modifiers of the different parts composing the same, and constructive work illustrating any of the foregoing.

In Drawing, attention should be given to the study as considered from an educational point of view, together with its application to the practical uses of life. In the mechanical department, accuracy and correct methods should be studied; while in free hand work from the object, relative proportion of parts should be carefully observed. Note well that geometric form is the basis of all industrial drawing. In design give special attention to the principles of decoration. A knowledge of the prismatic colors and their elementary combinations will be required. Sketching from familiar and convenient objects may form a portion of the examination in this subject.

In Geography, include all important facts and discoveries up to the present time, giving special attention to the State of New York.

In History, note important events, their causes and results. In American History, part of the questions will refer to the history of the State of New York.

In General History for 1897, one-half the questions will be upon the history of Greece.

The examination in General Literature for 1897 will be limited to Shakespeare's "Macbeth," Tennyson's "In Memoriam," Hawthorne's "Scarlet Letter," Bryant's "Thanatopsis" and Irving's "Alhambra," together with the literary and personal character of their respective authors.

In the Natural Sciences, Bookkeeping, Composition and Rhetoric, the ordinary textbooks will furnish all needed information.

In Civil Government, special attention will be given to the Constitution of the United States and of the State of New York.

In School Law, give attention to the rules and regulations of the Department of Public Instruction in addition to the provisions of the Consolidated School Law of 1894, and amendments thereto.

Candidates are required to fill out a copy of the following statement before entering upon an examination:

Statement of Candidate

Candidates who have received partial certificates for previous examinations (within two years), will submit them with this statement to be transmitted to the State Superintendent. They will be returned with the new partial certificate, or with the State certificate, if issued.

Examination held at.....August 23 to 27, 1897.
Full name..... Residence
P. O. address....., Age.....years. Successful experience in teaching.....years.
*Give three references as to experience, with names and post-office addresses.
Is this your first examination for a State certificate?.....
If not when and where were you present at previous examinations?.....
*Give three references as to moral character, with names and post-office addresses.
If you are not a resident of the State of New York, do you intend to teach in this State?

I hereby certify that the foregoing statement is correct in every particular.
Signature of Candidate.....

Copies of the above statement will be supplied at the examinations.

General Regulations

- 1. The printed questions will be sent to the examiners in sealed envelopes, and these will be first opened in the presence of the class at the time indicated in the accompanying program for the examination in each subject.
- 2. For evidence as to good character and successful experience, reference may be made to School Commissioners, City Superintendents, Principals of Academies and High Schools.
- 3. All applicants entering the examination for the first time must be present Monday afternoon, August 23, and must register their names and give such other information as the examiners may require, before taking a question paper. Candidates who have passed in a part of the subjects at a previous examination, need be present on the half-days only on which examinations occur in those subjects which they intend to take at this examination; but they must be present at the beginning of such half-day session, and should bring with them all partial certificates obtained at previous examinations.
- 4. The examination in each subject is restricted to the half-day designated in the accompanying program.

*Candidates entering the examination for the first time must submit letters in reference to experience and moral character, attaching the same to this statement.

5. Penmanship will be judged from the papers on Geography.

6. In the solution of all problems, process should be indicated. The simple answer, without the process by which it was obtained, will not be accepted.

Candidates will be informed of the results of the examination as early as practicable.

7. Candidates will not be permitted to take to the examination room books or papers of any description.

8. Collusion or communication between candidates during the examinations or willful misrepresentation in statements furnished will wholly vitiate their examination.

9. All statements and answers must be written in ink.

Uniform paper, pens, pencils and memoranda pads will be supplied by the Department.

Candidates should make themselves thoroughly familiar with the above regulations.

Program of Examination, 1897

Monday, August 23, 2 to 5 p. m.—Registering, Grammar, Civil Government and School Law.

Tuesday, August 24, 9 a. m. to 12 m.—Arithmetic, American History; 2 to 5 p. m.—Composition and Rhetoric, Geology, Chemistry.

Wednesday, August 25, 9 a. m. to 12 m.—Algebra, General Literature; 2 to 5 p. m.—Geography, Methods and School Economy, Orthography.

Thursday, August 26, 9 a. m. to 12 m.—Geometry, Physics; 2 to 5 p. m.—Drawing, Botany.

Friday, August 27, 9 a. m. to 12 m.—Physiology and Hygiene, bookkeeping; 2 to 5 p. m.—General History, Zoölogy, Astronomy, Latin, French or German, as a substitute for Zoölogy or Astronomy.

CHARLES R. SKINNER,
State Superintendent.

EXHIBIT No. 13

State Scholarships in Cornell University

1. DEPARTMENT CIRCULAR TO SCHOOL COMMISSIONERS AND CITY SUPERINTENDENTS
 2. QUESTIONS SUBMITTED AT EXAMINATION JUNE 6, 1896
 3. COMPLETE LIST OF STATE SCHOLARS, 1896
 4. TABLE SHOWING NUMBER OF CANDIDATES EXAMINED AND APPOINTED, 1896
 5. LIST OF STATE SCHOLARS OF 1895 WHO ARE NO LONGER STUDENTS IN THE UNIVERSITY
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EXAMINATIONS FOR STATE SCHOLARSHIPS IN CORNELL UNIVERSITY

1. THE LAW—REGULATIONS—INSTRUCTIONS TO EXAMINERS.

STATE OF NEW YORK

DEPARTMENT OF PUBLIC INSTRUCTION,
SUPERINTENDENT'S OFFICE
ALBANY, June 6, 1896.

To school commissioners and city superintendents:

The competitive examination of candidates for the State scholarships in Cornell University, provided for by title XII, chapter 556, of the Laws of 1894, (the Consolidated School Law), will be held in each county on Saturday, June 5, 1897, commencing at 9 a. m.

The examination will be in charge of the City Superintendents and the School Commissioners in each county, under such regulations as may be agreed upon to secure an examination which shall be fair in all respects. Village Superintendents are not authorized to act.

The Law

Following is the law as amended by title XII, of chapter 556, of the Laws of 1894:

§ 9. The several departments of study in the said university shall be open to applicants for admission thereto at the lowest rates of expense consistent with its welfare and efficiency, and without distinction as to rank, class, previous occupation or locality. But, with a view to equalize its advantages to all parts of the State, the institution shall receive students to the number of one each year from each Assembly district in this State, to be selected as hereinafter provided, and shall give them instruction in any or all the prescribed branches of study in any department of said institution, free of any tuition fee or of any incidental charges to be paid to said university, unless such incidental charges shall have been made to compensate for material consumed by said students or for damages needlessly or purposely done by them to the property of said university. The said free instruction shall, moreover, be accorded to said student in consideration of their superior ability and as a reward for superior scholarship in the academies and public schools of this State. Said students shall be selected as the Legislature may from time to time direct, and until otherwise ordered, as follows:

1. A competitive examination, under the direction of the Department of Public Instruction, shall be held at the county court-house in each county of the State, upon the first Saturday of June in each year, by the city superintendents and the school commissioners of the county.

2. None but pupils of at least sixteen years of age and of six months' standing in the common schools or academies of the State during the year immediately preceding the examination, shall be eligible.

3. Such examination shall be upon such subjects as may be designated by the president of the university. Question papers prepared by the Department of Public Instruction shall be used, and the examination papers handed in by the different candidates shall be retained by the examiners and forwarded to the Department of Public Instruction.

4. The examiners shall, within ten days after such examination, make and file in the Department of Public Instruction, a certificate in which they shall name all the candidates examined and specify the order of their excellence, and such candidates shall, in the order of their excellence, become entitled to the scholarships belonging to their respective counties.

5. In case any candidate who may become entitled to a scholarship shall fail to claim the same or shall fail to pass the entrance examination at such university, or shall die, resign or absent himself without leave, be expelled or for any other reason shall abandon his right to or vacate such scholarship either before or after entering thereupon, then the candidate certified to be next entitled in the same county shall become entitled to the same. In case any scholarship belonging to any county shall not be claimed by any candidate resident in that county, the State Superintendent may fill the same by appointing thereto some candidate first entitled to a vacancy in some other county, after notice has been served on the superintendent or commissioners of schools of said county. In any such case the president of the university shall at once notify the Superintendent of Public Instruction, and that officer shall immediately notify the candidate next entitled to the vacant scholarship of his right to the same.

6. Any State student who shall make it appear to the satisfaction of the president of the university that he requires leave of absence for the purpose of earning funds with which to defray his living expenses while in attendance, may, in the discretion of the president be granted such leave of absence, and may be allowed a period not exceeding six years from the commencement thereof for the completion of his course at said university.

7. In certifying the qualifications of the candidates preference shall be given (where other qualifications are equal) to the children of those who have died in the military or naval service of the United States.

8. Notices of the time and place of the examinations shall be given in all the schools having pupils eligible thereto, prior to the first day of January in each year, and shall be published once a week for three weeks in at least two newspapers in each county immediately prior to the holding of such examinations. The cost of publishing such notices and the necessary expenses of such examinations shall be a charge upon each county respectively, and shall be audited and paid by the board of supervisors thereof. The State Superintendent of Public Instruction shall attend to the giving and publishing of the notices hereinbefore provided for. He may, in his discretion, direct that the examination in any county be held at some other time and place than that above specified, in which case it shall be held as directed by him. He shall keep full records in his Department of the reports of the different examiners, showing the age, post-office address and standing of each candidate, and shall notify candidates of their rights under this act. He shall determine any controversies which may arise under the provisions of this act. He is hereby charged with the general supervision and direction of all matters in connection with the filling of such scholarships. Students enjoying the privileges of free scholarships, shall, in common with the other students of said university, be subject to all of the examinations, rules and requirements of the board of trustees or faculty of said university, except as herein provided.

Notice of Examination

Notice of this examination is to be published once a week, for three weeks prior thereto, in two newspapers in each county. At the proper time you will advise with the other officers, who with you are to have charge of the examination in your county, and will jointly prepare, sign and publish the required notice. A form of notice for publication which may be used, will be found on the last page of this communication. You will instruct publishers of newspapers to forward their bill for such publication to the board of supervisors of your county, as the law makes the cost of publication a county charge. In addition to the newspaper notice required by law, please endeavor to procure general newspaper comment upon the matter, and otherwise exert every

reasonable effort to bring the examination to the attention of all schools having eligible candidates.

It is the purpose of the law to cause the free scholarship privileges to be brought to the attention of the people of the State, and to hold them as prizes before all the pupils of the academies and common schools who are desirous of obtaining a collegiate education, to the end that the scholarships may be filled, and that the opportunities which they offer may be brought to as many as possible of the most deserving children of the commonwealth.

Where Examinations May Be Held

While the law provides that the examination shall be held in the county court-house in each county, it, at the same time, permits it to be held elsewhere by the direction of the Superintendent of Public Instruction. It is the evident purpose of the law to provide at least one place where the examination may of right be held, hence the court-house is designated. It would undoubtedly be better to hold the examination in a school building in all cases where the local school officers will consent thereto, which they will probably do in most instances. Where such consent is obtained, you may insert such place in the notice without communicating with the Department for direction in the matter. No expense must be incurred on this account, however, unless school buildings are offered free of costs, the examination will be held at the county court-house.

How Question Papers Will Be Sent

In all counties having but one school commissioner, printed question papers, answers, blank forms for reports, blank statements of candidates, etc., will be forwarded to him on the first day of June next. In counties having two or more school commissioners, or one or more city superintendents, they will confer together and advise me promptly to whom the question papers, etc., should be sent.

Special Attention

Examiners will call the attention of all interested to the following:

1. Candidates must be actual residents of this State.
2. Candidates must be at least sixteen years of age.
3. Candidates must show that they have attended a common school or academy of this State for at least six months during the year immediately preceding the date of the examination. Teaching can not be considered equivalent to attendance. Attendance at private schools or in normal departments of normal schools does not comply with the provisions of the law.
4. Candidates should, in all cases, attend the examinations in the counties in which they actually reside.
5. No person should enter an examination unless prepared to accept a scholarship, should one be awarded.
6. No person can receive a Cornell State scholarship who does not enter an examination.
7. Any person appointed to a scholarship and afterwards declining the same, forfeits it absolutely, and the vacancy is filled from the list of other eligible candidates. The candidate is eligible, however, to enter a succeeding examination by meeting the conditions required.
8. It is advisable for candidates who fail to obtain scholarships to take the entrance examination at the university in September, as all vacancies will be filled by appointments from candidates on the eligible lists who have passed the entrance examination and registered in the university. No direct assurance can be given that a scholarship can be awarded, as there may be no vacancies.
9. To be entitled to be placed upon the eligible list from which appointments to scholarships in counties having no claimants will be made, candidates must attain at least an average of 66 2-3 per cent. Candidates who fail to attain such standing can

not receive consideration by the Department in making appointments to these vacant scholarships until the legible list is exhausted.

Subjects for Examination

The President of Cornell University has designated the following subjects for the examination of 1897, viz.: English, Algebra, Arithmetic, and Plane Geometry, and either Latin, French or German, at the option of the candidate.

Scope of Subjects

In English: The candidate will be required to write a short English composition — correct in spelling, punctuation, grammar, division by paragraphs, and expression — upon one of the several subjects announced at the time of the examination for 1897: Shakespeare's *As You Like It* and *The Merchant of Venice*; DeFoe's *History of the Plague in London*; Irving's *Tales of a Traveler*; Hawthorne's *Twice Told Tales*; Longfellow's *Evangeline*; George Elliot's *Silas Marner*; Burke's *Conciliation with America*; Schott's *Marmion*; Macaulay's *Life of Samuel Johnson*.

In Algebra: [through quadratic equations, and including radicals and the theory of exponents]; as much as is contained in the larger American and English text-books.

In Arithmetic: [including the metric system of weights and measures]; as much as is contained in the larger American and English text-books.

In Plane Geometry: as much as is contained in the larger American and English text-books.

In Latin: four books of Caesar's *Commentaries* or an equivalent with a good knowledge of the grammar.

In French: the amount of French necessary would be represented by the whole of Whitney's *Practical French Grammar*, and by the first hundred pages of Super's *French Reader*, and the whole of Crane and Brun's *Tableau de la Revolution Francaise*.

In German: the amount of German necessary would be represented by the reading matter in Brandt's *Reader*, or by the larger portion of Whitney's *Reader*, and by the amount of grammar in Brandt's, Joynes-Meissner's or Whitney's *Grammar*. Preparation by the so-called "natural" method should be supplemented by a thorough drill in syntax.

Method of Conducting the Examinations

It is suggested that the manner of procedure be as follows:

Upon calling the class to order, have each member fill out with ink, in his own handwriting, the blank statement of name, residence, post-office address, etc. Collect the same and dismiss any candidate whose statement does not indicate his eligibility to the scholarship under the provisions of the statute and return these certificates with your report.

Next, submit the question papers on Arithmetic and Algebra. Continue the sitting upon the two subjects named without interruption from 9 to 12 o'clock, unless candidates finish prior to that time. Close the sitting at 12 o'clock in any event, having notified the class at the opening that this will be done.

Direct that the candidates write their answers in ink upon uniform paper supplied by this Department. You will supply the applicants ink and pens, forwarding your bill for the same, together with the bills for publishing the notices of examination, to the board of supervisors of your county, which is required by law to audit and pay these necessary expenses. Keep the answers in each subject upon a sheet of paper by themselves.

Let the afternoon sitting for the examination in English, Plane Geometry, and Latin, French or German begin at 1.30 and end at 5 o'clock, unless candidates finish their work earlier.

Each answer will be marked upon a scale having a maximum of 10. Each absolutely correct answer will receive 10 credits, and a correspondingly less number as it approxi-

mates correctness; an absolutely erroneous answer will be marked zero. There are 25 questions in all. If all are correctly answered the candidate will receive 250 credits, and a correspondingly less number as he approaches correctness. The aggregate number of credits received will determine the relative standing of the candidates.

Examiners, immediately upon the close of the examination, will forward by express to the State Superintendent, at Albany, all papers submitted by candidates in all subjects taken by them.

As soon as may be, and certainly within four days after the examination, examiners will forward the report, signed by all city superintendents and school commissioners in the county to the State Superintendent, giving the names in full of all persons examined, and showing in what subjects each candidate submitted papers. All statements of candidates must be forwarded with the report of the examiners to the Superintendent.

How Vacancies Will Be Filled

The law now authorizes the State Superintendent to fill vacancies arising in any county, by appointing some candidate standing highest on the list of candidates selected from other counties after the quota of scholarships belonging to such other counties has been filled. In exercising this power the following system will be followed, of which it may be well to advise the class. The examination papers of the candidates standing highest upon the list in each county (after the appointments have been made from that county) will be classified and arranged in the order of merit, and appointments will be made from this list in the order in which the names stand. If this list should be exhausted, the same course would be pursued as to candidates coming next upon the list selected in like manner. In this way all candidates will secure such rights as their merits entitle them, the State Superintendent will be relieved from the disagreeable duty of discrimination, and the scholarships will be equitably distributed over the territory of the State.

Examinations Must Not Be Omitted.

There may be cases in which the number of candidates who present themselves will be smaller than the number of scholarships belonging to the county, and in such cases it may be thought unnecessary to go through the examination. To take that course would be a mistake. Candidates will become entitled to their scholarships only after the steps indicated by the statute shall have been taken. The law must be fully complied with. Therefore, it is advised that all the proceedings be taken regularly, and that the examination papers be filed in the Department, even though the number should be so small in any county as to remove the necessity for competition between candidates.

Entrance Examinations

The entrance examinations at the University will be held June 11-15 inclusive, and September 14-17 inclusive. Successful candidates must appear at the opening of one or the other of these examinations, but as the time which will elapse between the date of the competitive examination and the June entrance examination at the University is only six days, it will be impossible for this Department to notify candidates of the result of examinations sufficiently early for them to appear at the June entrance examination.

All appointments will be awarded at the earliest date possible and certainly before July 1st. This Department will notify all candidates of the standing which they attained in the examinations and their rights in the premises.

Registration of State Scholars.

Examiners should inform all candidates that holders of State scholarships whose appointment takes effect at the beginning of the university year 1897, must be registered before 6 p. m., on registration day, September 22, 1897; a failure to thus register with-

out furnishing a valid excuse will forfeit all rights to scholarships. Holders of State scholarships must also register, each term, before the close of registration day, and a failure to do so, without assigning a valid reason, forfeits the scholarship.

Very respectfully yours,

CHARLES R. SKINNER,
State Superintendent,

Note.— It will be well to read the essential portions of this circular to the class before the examination begins.

Form of Notice

(Form of notice to be published in two newspapers in each county, once a week, for three weeks prior to the examination.)

CORNELL UNIVERSITY
State Scholarships

(Notice Pursuant to Title XII, Chapter 556, Laws of 1894.)

A competitive examination of candidates for the State scholarships in Cornell University, falling to the county of.....will be held at the (name the building).....in the city (or village) of.....on Saturday, the 5th day of June, 1897, commencing at 9 a. m.

Candidates must be at least 16 years of age and of six months' standing in the common schools or academies of the State during the present school year, and actual residents of this State.

No person should enter an examination unless prepared to accept a scholarship, should one be awarded.

The examination will be upon the following subjects, viz.: English, arithmetic, plane geometry, algebra, through quadratic equations, and either Latin, French or German, at the option of the candidate.

There will be as many candidates appointed from this county as there are Assembly districts in the county. Candidates will become entitled to the scholarships in the order of merit.

Dated at, this day of May, 1897.

.....
Superintendent of Schools, City of.....
.....
School Commissioner.....
.....
School Commissioner.....

2. QUESTIONS SUBMITTED AT EXAMINATIONS JUNE 6, 1896

A. M.

ARITHMETIC

1. Reduce (a) $\frac{21}{378}$ to a decimal; (b) $\frac{19\frac{1}{2}}{9\frac{1}{2}}$ to a mixed number; (c) $.00303\frac{4}{7}$ to a common fraction; (d) $\frac{7}{840}$ to per cent.; (e) 3.64625 to per cent.
2. How many square yards are there on the floor of a porch 8 ft. 3 in. wide, extending around two sides and one end of a building 40 ft. 6 in. by 22 ft. 3 in.?
3. Find the exact interest on \$789.50 from May 13, 1895, to June 6, 1896, at 5 per cent. per annum.

4. If the interest on \$456 for 6 mo. 9 da. at 6 per cent. per annum is \$14.36, how much is the interest on \$798 for 9 mo. 27 da. at $4\frac{1}{2}$ per cent. per annum? (Solve by proportion.)
5. (a) How is the liter determined from the meter? (b) Reduce 5 liters to quarts. (Correct to two decimal places.)

ALGEBRA

1. Find the prime factors of
 - (a) $a^6 - 12a^5 + 35a^4$,
 - (b) $16y^4 - 8y^2 + 1$,
 - (c) $x^3 - a^3$,
 - (d) $x^3 + 2x^2 - x - 2$.
2. Find two consecutive numbers such that a fifth of the larger shall equal the difference between a third and an eighth of the smaller.
3.
$$\begin{cases} \frac{1}{2}(3x-2y) + \frac{1}{3}(5x-3y) = x \\ \frac{4x-3y}{2} + \frac{1}{4}x - y = 1 + y \end{cases}$$
 solve for the values of x and y .
4. A is 4 years older than B; and the sum of the squares of their ages is 976; what are their ages?
5. (a) Multiply \sqrt{a} by $\sqrt[3]{a}$.
 (b) Reduce $\sqrt{54am^9}$ to its simplest form.
 (c) Divide $(a^2 - b^2)^{\frac{1}{2}}$ by $(a - b)^{\frac{1}{2}}$.
 (d) What is the 4th power of $-\frac{3a^2}{x^{\frac{1}{2}}y^{-n}}$?

ENGLISH

Write a short English composition,—correct in spelling, punctuation, grammar, division by paragraphs, and expression,—upon one of the following subjects: Shakespeare's Merchant of Venice; Longfellow's Evangeline; Webster's First Bunker Hill Oration.

PLANE GEOMETRY

1. Demonstrate: If two parallel lines are cut by a third straight line, the alternate-interior angles are equal.
2. Demonstrate: If two circumferences intersect, the straight line joining their centers bisects their common chord at right angles.
3. If the sides A B and B C of an inscribed quadrilateral A B C D subtend arcs of 69 degrees and 112 degrees and the angle A E D between the diagonals is 87 degrees, how many degrees are there in each angle of the quadrilateral?
4. With a given straight line as a base, to construct a rectangle equivalent to a given rectangle.
5. Define (a) geometry, (b) regular polygon, (c) sector of a circle, (d) state the converse of the proposition in question number one, (e) state the proposition concerning the area of a circle.

LATIN

1-2. Translate:

- 1 Animadvertit Caesar unos ex omnibus Sequanos nihil earum rerum,
- 2 facere, quas ceteri facerent, sed tristes, capite demisso, terram
- 3 intueri.
- 4 Quos Caesar, ut in miseros ac supplices usus misericordia videretur,
- 5 diligentissime conservavit.
- 6 Quod ubi auditum est, conclamant omnes occasionem negotii bene ger-
- 7 endi amittendam non esse, ad castra iri oportere.

3. Give syntax of (a) Sequanos (line 1); (b) misericordia (line 4); (c) negotii (line 6); give the principal parts of (d) demisso (line 2); (e) intueri (line 3).

4. Give the reason for the mode and tense of *facere* (line 2).
5. Write a Latin sentence, not quoted from the above selections, containing (a) a gerund; (b) an infinitive having its subject in the accusative case.

FRENCH

1-2 Translate:

Voici comme Chateaubriand raconte une tempête le désert:

“ Vers la troisième heure du jour, le dromadaire commença à donner des signes d'inquiétude: il enfonçait ses naseaux dans le sable, et soufflait avec violence. Par intervalle, l'autruche poussait des sons lugubres; les serpents et les caméléons se hâtaient de rentrer dans le sein de la terre. Je vis le guide regarder le ciel et pâlir. Je lui demandai la cause de son trouble. Je crains, dit-il le vent du Midi: sauvons-nous. Tournant le visage au nord, il se mit à fuir de toute la vitesse de son dromadaire. Je le suivis. L'horrible vent, qui nous menaçait, était plus léger que nous, soudain, de l'extrémité du désert, accourt un tourbillon. Le sol, emporté devant nous, manque à nos pas; tandis que d'autres colonnes de sables, enlevées derrière nous, roulent sur nos têtes. Egaré dans un labyrinthe de tertres mouvants et semblables entre eux, le guide déclare qu'il ne reconnaît plus sa route; pour dernière calamité, dans la rapidité de notre course, nos outres remplies d'eau s'écoulent. Haletants, dévorés d'une soif ardente retenant fortement notre haleine, dans la crainte d'aspirer des flammes, la sueur ruisselle à grands flots de nos membres abattus. L'ouragan redouble de rage; il creuse jusqu'aux antiques fondements de la terre, et répand dans le ciel les entrailles brûlantes du désert. Enseveli dans une atmosphère de sable embrasé, le guide échappe à ma vue. Tout-à-coup j'entends son cri; je vole à sa voix: l'infortuné, foudroyé par le vent de feu, était tombé mort sur l'arène, et son dromadaire avait disparu. En vain j'essayai de ranimer mon malheureux compagnon; mes efforts furent inutiles. Je m'assis à quelque distance, tenant mon cheval en main, et n'espérant plus que dans celui qui changea les feux de la fournaise d'Azarias en un vent frais et une douce rosée. Un acacia qui croissait dans ce lieu me servit d'abri. Derrière ce frêle rempart, j'attendis la fin de la tempête. Vers le soir, le vent du nord reprit son cours: l'air perdit sa chaleur cuisante, les sables tombèrent du ciel et me laissèrent voir les étoiles: inutilles flambeaux qui me montrèrent seulement l'immensité du désert! Le jour vint achever mon supplice. Le soleil m'ôta le peu de forces qui me restaient, j'essayai de faire quelque pas; mais bientôt, incapable d'aller plus avant, je me précipitai la tête dans un buisson, et j'attendis ou plutôt j'appelai la mort. Déjà le soleil avait passé le milieu de son cours, tout-à-coup le rugissement d'un lion se fait entendre. Je me soulève avec peine, et j'aperçois l'animal terrible courant à travers les sables. Il me vint alors en pensée qu'il se rendait peut-être à quelque fontaine connue des bêtes de ces solitudes. Je me recommandai à la puissance qui protégea Daniel, et, louant Dieu, je me levai et suivis de loin mon étrange conducteur. Nous ne tardâmes pas d'arriver à une petite vallée. Là se voyait un puits d'eau fraîche, environné d'une mousse verdoyante. Un dattier s'élevait auprès; ses fruits mûrs pendaient sous ses palmes recourbées. Ce secours inespéré me rendit la vie. Le lion but à la fontaine et s'éloigna doucement, comme pour me céder sa place au banquet de la Providence: ainsi renaissaient pour moi ces jours du berceau du monde, alors que le premier homme, exempt de souillure, voyait les bêtes de la création se jouer autour de leur roi et lui demander le nom qu'elles porteraient au désert.

3. (a) Select from the exercise five verbs and give the principal parts of each.
(b) Conjugate the verb *sentir* in the present, imperfect, and future tenses.
4. Give the general rules for French gender.
5. Translate into French:
 - (a) It takes time to do things properly.
 - (b) The end justifies the means.
 - (c) He is jack of all trades and master of none.
 - (d) There are many things one needs but must be content to do without.
 - (e) Honesty is right and is not a policy.

GERMAN

1-3. Translate:

ALEXANDER IN AFRIKA.

Alexander der Grosse kam einst in eine entlegene goldreiche Gegend von Afrika; die Einwohner gingen ihm entgegen und brachten ihm Schalen dar voll goldener Aepfel und Früchte— „Ist man diese Früchte bei euch?“ sprach Alexander; „ich bin nicht gekommen, eure Reichthümer zu sehen, sondern von euren Sitten zu lernen.“— Da führten sie ihn auf den Markt, wo ihr König Gericht hielt.

Eben trat ein Bürger vor und sprach: „Ich habe, o König, von diesem Manne ein Grundstück gekauft, und als ich den Boden durchgrub, fand ich einen Schatz. Dieser ist nicht mein; denn ich habe nur das Grundstück gekauft, nicht den darin verborgenen Schatz, und gleichwohl will ihn der Verkäufer nicht wieder nehmen.“— Und sein Gegner antwortete: „Ich bin ebenso gewissenhaft als mein Mitbürger. Ich habe ihm das Gut, sammt Allem, was darin verborgen war, verkauft und also auch den Schatz.“

Der König wiederholte ihre Worte, damit sie sähen, ob er sie recht verstanden hätte, und nach einiger Ueberlegung sprach er: „Du hast einen Sohn, Freund?“— „Ja.“— „Und du eine Tochter?“— „Ja.“— „Eure Kinder lieben sich?“— „O sehr!“— „Nun wohl! verheirathet eure Kinder und gebet ihnen den gefunden Schatz zur Heirathsgabe! Das ist meine Entscheidung.“

Alexander erstaunte, da er diesen Ausspruch hörte: „Habe ich unrecht gerichtet?“ sprach der König, „dass du also erstaunst?“ „O nein,“ antwortete Alexander; „aber in unserm Lande würde man anders richten.“— „Und wie denn?“ fragte der afrikanische König.— „Die Wahrheit zu gestehen,“ antwortete Alexander, „wir würden beide Männer in Bewahrung gehalten und den Schatz für den König in Besitz genommen haben.“

Da schlug der König die Hände zusammen und sprach: „Scheint denn bei euch die Sonne? Und lässt der Himmel noch auf euch regnen?“ „Alexander antwortete: „Ja.“— „So muss es,“ fuhr er fort, „der unschuldigen Thiere wegen sein, die in eurem Lande leben; denn über solche Menschen sollte keine Sonne scheinen, kein Regen fallen.“

H e r d e r.

DIE NACHT AUF DEM DRACHENFELS.

Um Mitternacht war schon die Burg erstiegen,
Der Holzstoss flammte auf am Fuss der Mauern,
Und wie die Burschen lustig niederkauern,
Erscholl das Lied von Deutschlands heil'gen Siegen.

Wir tranken Deutschlands Wohl aus Rheinweinkrügen,
Wir sah'n den Burggeist auf dem Thurme lauern,
Viel dunkle Ritterschaften uns umschauern,
Viel Rebelfrau'n bei uns vorüberfliegen.

Und aus den Trümmern steigt ein tiefes Aechzen,
Es klirrt und rasselt, und die Eulen krächzen;
Dazwischen heult des Nordsturms Wuthgebräuse.

Sieh nur, mein Freund, so eine Nacht durchwacht' ich
Auf hohem Drachenfels, doch leider bracht ich
Den Schnupfen und den Husten mit nach Hause.

H. H e i n e.

4. (a) Give the principal parts of five irregular verbs selected from the second exercise:
(b) Decline „der unschuldigen Thiere.“

5. Translate into German:

- (a) If nothing happens to prevent my coming, I will arrive on the 5 o'clock train.
(b) June is the merriest month in the year.
(c) The winter is gone, summer has come and all the earth rejoices.

3. COMPLETE LIST OF STATE SCHOLARS AT CORNELL UNIVERSITY, APPOINTED UPON EXAMINATION HELD JUNE 6, 1896.

Number	NAME	County appointed for	County of residence
1	1 McCreary, Edward A	Albany.....	Albany.
2	2 Carr, Walter.....	Albany.....	Chemung.
3	3 Cleghorn, Amy F.....	Albany.....	Albany.
4	4 Rosekrans, Burton W....	Albany.....	Albany.
5	1 Brennen, William J.....	Allegany.....	Allegany.
6	1 Whipple, Helen Winefred.....	Broome.....	Broome.
7	2 Davis, John Charles.....	Broome.....	Broome.
8	1 Stephens, Charles Aldrich.....	Cattaraugus.....	Cattaraugus.
9	2 Gladden, Charles S.....	Cattaraugus.....	Cattaraugus.
10	1 Moshler, Edgar S.....	Cayuga.....	Cayuga.
11	2 Olney, Olive B.....	Cayuga.....	Cayuga.
12	1 Dorn, Ralph Waldo.....	Chautauqua.....	Chautauqua.
13	2 Fitch, Squire E.....	Chautauqua.....	Chautauqua.
14	1 Gardner, Otis Howard.....	Chemung.....	Chemung.
15	1 Eccleston, Robert Cook.....	Chenango.....	Chenango.
16	1 Merrihew, Merton H.....	Clinton.....	Clinton.
17	1 Van Ness DeLarmater.....	Columbia.....	Columbia.
18	1 Weeks, Cortland D.....	Cortland.....	Cortland.
19	1 Johnson, Floyd P.....	Delaware.....	Delaware.
20	1 Wilson, Elbert Andrews.....	Dutchess.....	Tompkins.
21	2 Dutcher, Elsie M.....	Dutchess.....	Tioga.
22	1 Garrettson, Albert M.....	Erie.....	Erie.
23	2 Peterman, Albert E.....	Erie.....	Erie.
24	3 Nathan, Marvin.....	Erie.....	Erie.
25	4 Smith, Joslyn Z.....	Erie.....	Erie.
26	5 Smith, Julian C.....	Erie.....	Erie.
27	6 Clark, Harold H.....	Erie.....	Erie.
28	7 Bartlett Pliny.....	Erie.....	Erie.
29	8 Estler, Clarence B.....	Erie.....	Erie.
30	1 Smith, Arthur B.....	Essex.....	Essex.
31	1 Ray, Jesse Treat.....	Franklin.....	Cayuga.
32	1 Thompson, Vera Mae.....	Fulton and Hamilton.....	Fulton.
33	1 Hun, Myrta Elanor.....	Genesee.....	Genesee.
34	1 Palmer, Horace Wilbur.....	Greene.....	Greene.
35	1 McCann, Helen Regenett.....	Herkimer.....	Herkimer.
36	1 Barker, Anna Laura.....	Jefferson.....	Jefferson.
37	2 Coe, Glenn Earl.....	Jefferson.....	Jefferson.
38	1 Huntington, Frederic D.....	Kings.....	Kings.
39	2 Ross, Ida A.....	Kings.....	Kings.
40	3 Dresser, Gradnier S.....	Kings.....	Kings.
41	4 Rose, Mabel E.....	Kings.....	Kings.
42	5 Binkerd, Helen B.....	Kings.....	Kings.
43	6 Gray, Florence B.....	Kings.....	Kings.
44	7 Smith, Edward P.....	Kings.....	Kings.
45	8 Raymond, Ralph.....	Kings.....	Kings.
46	9 Remsen, Charles C.....	Kings.....	Kings.
47	10 Fitzpatrick, John T.....	Kings.....	Kings.
48	11 Morgan, Llewellyn.....	Kings.....	Kings.
49	12 Saxton, Mary L.....	Kings.....	Kings.
50	13 Scott, Charles R.....	Kings.....	Kings.
51	14 Andrews, Ethel M.....	Kings.....	Kings.
52	15 Skinner, Frances B.....	Kings.....	Orleans.
53	16 Patterson, Lawrence.....	Kings.....	Kings.
54	17 Hemstreet, Ralph E.....	Kings.....	Kings.
55	18 Huntington, Louis S.....	Kings.....	Kings.
56	19 Seymour, Arthur G.....	Kings.....	Kings.
57	20 Lauer, William G.....	Kings.....	Kings.
58	21 Pate, Walter Lacey.....	Kings.....	Kings.
59	1 Howard, Thomas.....	Lewis.....	Lewis.
60	1 Halsey, Clayton I.....	Livingston.....	Livingston.
61	1 Niles, Walter Lindsay.....	Madison.....	Madison.
62	1 Stone, Clara L.....	Monroe.....	Monroe.
63	2 Bird, Paul P.....	Monroe.....	Monroe.
64	3 Toaz, Mabel E.....	Monroe.....	Monroe.
65	4 Sias, Carlton.....	Monroe.....	Monroe.
66	1 Yonker, Wilfred Earl.....	Montgomery.....	Montgomery.
67	1 Miller, Roger Alexander.....	Niagara.....	Niagara.
68	2 Magoffin, Edward Thompson.....	Niagara.....	Niagara.
69	1 Ziporkes, William Jerome.....	New York.....	New York.
70	2 Shanks, Amy Chamberlain.....	New York.....	New York.
71	3 Harding, Mary Eloise.....	New York.....	Orange.
72	4 Potter, Raymond G.....	New York.....	New York.
73	5 Shanks, Sara Gore.....	New York.....	New York.
74	6 Larkin, George A.....	New York.....	Cattaraugus.
75	7 Chase, William E.....	New York.....	Yates.
76	8 Shaul, Earl Harold.....	New York.....	Otsego.
77	9 Caldwell, William Arthur.....	New York.....	Schuyler.
78	10 Corcilius, Inez.....	New York.....	Chautauqua.
79	11 Pettit, James Harvey.....	New York.....	Ontario.

LIST OF STATE SCHOLARS—(Concluded)

Number	NAME	County appointed for	County of residence
80	12 Baker, J. Fred.....	New York.....	Oswego.
81	13 Mirrleay, Thomas W.....	New York.....	Livingston.
82	14 Vrooman, Morrell	New York.....	Montgomery.
83	15 Mason, Herbert Delavan	New York.....	Warren.
84	16 Smallwood, Charles Burlingame.....	New York.....	Wyoming.
85	17 Ray, Frank A.....	New York.....	Columbia.
86	18 White, Henry Graves.....	New York.....	Onondaga.
87	19 Bowen, Frederick Edward	New York.....	Rensselaer.
....	1 Bell, Jesse M.....	Oneida	Niagara.
....	2 Buchanan, Myron Webster.....	Oneida	Oneida.
....	3 White, Willard Olney	Oneida	Oneida.
....	1 Root, Eva Rosalie.....	Onondaga.....	Onondaga.
....	2 Clark, Berton Duane.....	Onondaga	Onondaga.
....	3 Morey, S. Roy.....	Onondaga.....	Onondaga.
....	4 De La Mater, Stephen T.....	Onondaga.....	Onondaga.
....	1 Foster, Herbert H.....	Ontario	Ontario.
....	1 Quackenbush, Ernest.....	Orange	Orange.
....	2 Clark, Edward Frank.....	Orange	Orange.
....	1 Pettengill, Ben Miller.....	Orleans	Orleans.
....	1 Kimber, Anna.....	Oswego	Oswego.
....	2 Crouch, H. Chester	Oswego	Oswego.
....	1 Thompson, Kinnington L.....	Otsego	Otsego.
....	1 Bergen, Charles W.....	Queens	Montgomery.
....	1 Knight, Seymour	Rensselaer	Rensselaer.
....	2 MacDonald, Henry G.....	Rensselaer	Rensselaer.
....	3 Willis, Rodney R.....	Rensselaer	Allegany.
....	1 Stedman, Irving Lyon.....	Richmond.....	Cortland.
....	1 Beardslee, Robert W.....	St. Lawrence.....	St. Lawrence.
....	2 Whitney, Bertha Augusta	St. Lawrence.....	St. Lawrence.
....	1 Pendergrass, Robert A.....	Saratoga	Saratoga.
....	1 Worth, Frances E.....	Schuyler	Schuyler.
....	1 Costello, Margaret Clara	Seneca	Seneca.
....	1 Graton, Louis Caryl	Steuben	Steuben.
....	2 Bowman, Josephine	Steuben	Steuben.
....	1 Raynor, Vivian Loretta	Suffolk	Suffolk.
....	2 Cunningham, William J.....	Suffolk	Suffolk.
....	1 Palen, Lewis S.....	Sullivan.....	Sullivan.
....	1 Thomas, Eva Alice.....	Tioga.....	Tioga.
....	1 Buck, Ellard A.....	Tompkins	Tompkins.
....	1 Perrine, Levi Leroy.....	Ulster	Ulster.
....	2 Cunningham, William D.....	Ulster	Ulster.
....	1 Starbuck, Raymond D.....	Warren	Warren.
....	1 Spencer, Virginia Emeline.....	Washington	Washington.
....	1 Young, Helen L.....	Wayne	Wayne.
....	1 Ihlder, John William.....	Westchester	Westchester.
....	1 Hufnagel, Fred B.....	Westchester	Westchester.
....	3 Kingsley, Charles Frank.....	Westchester	Westchester.
....	1 Davidson, Robert Irving.....	Wyoming	Wyoming.
....	1 Taylor, William S.....	Yates.....	Yates.

4. TABLE SHOWING BY COUNTIES THE NUMBER OF CANDIDATES FOR STATE SCHOLARSHIPS AT CORNELL UNIVERSITY, EXAMINED JUNE 6, 1896, AND NUMBER APPOINTED FROM EACH COUNTY

	Whole No. examined	Number appointed		Whole No. examined	Number appointed
Albany	6	3	Ontario	7	2
Allegany.....	5	2	Orange	5	3
Broome	5	2	Orleans	2	2
Cattaraugus	9	3	Oswego	2	3
Cayuga	8	3	Otsego	4	2
Chautauqua	9	3	Putnam.....	0	0
Chemung	4	2	Queens.....	1	0
Chenango.....	2	1	Rensselaer.....	6	3
Clinton	3	1	Richmond	1	0
Columbia	3	2	Rockland	1	0
Cortland	3	2	St. Lawrence	4	2
Delaware.....	4	1	Saratoga	3	1
Dutchess.....	0	0	Schenectady	0	0
Erie.....	14	8	Schoharie.....	0	0
Essex	1	1	Schuyler	6	2
Franklin	0	0	Seneca	4	1
Fulton and Hamilton	1	1	Steuben	6	2
Genesee	8	1	Suffolk.....	3	2
Greene.....	2	1	Sullivan	1	1
Herkimer	3	1	Tioga	4	2
Jefferson	7	2	Tompkins	13	2
Kings	24	20	Ulster.....	2	2
Lewis	2	1	Warren	2	2
Livingston	10	2	Washington	4	1
Madison	5	1	Wayne.....	8	1
Monroe	6	4	Westchester	3	3
Montgomery.....	5	3	Wyoming.....	3	2
New York.....	5	4	Yates	2	2
Niagara.....	5	3			
Oneida.....	5	2	Total.....	275	128
Onondaga	9	5			

5. LIST OF PERSONS WHO RECEIVED CORNELL STATE SCHOLARSHIPS IN 1895, BUT WHO ARE NO LONGER STUDENTS IN THE UNIVERSITY.

NAME	County appointed for	Person appointed to fill vacancy	County of residence
Ward N. Barden	Herkimer	Amos J. Klenkhart	Montgomery.
Zelma Mattice.....	New York.....	Arthur B. Myrick	Kings.
Jonathan N. Holmes	New York.....	Helen E. Wilson	Steuben.

EXHIBIT No. 14

College Graduates' Certificates

Indorsement of Normal Diplomas and State
Certificates Issued in Other States

1. LAW OF 1888
 2. CIRCULAR OF INFORMATION
 3. LIST OF COLLEGE GRADUATES' CERTIFICATES GRANTED 1896
 4. LIST OF NORMAL DIPLOMAS INDORSED, 1896
 5. LIST OF STATE CERTIFICATES INDORSED 1896
-
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COLLEGE GRADUATES' CERTIFICATES

INDORSEMENT OF NORMAL DIPLOMAS AND STATE CERTIFICATES ISSUED IN OTHER STATES

1. THE LAW OF 1888

The Legislature of 1888, amended by chapter 331, section 15 of title 1, of the "Consolidated School Act" so as to read as follows (amendments in italics):

§ 15. He (the State Superintendent) may grant, under his hand and seal of office a certificate of qualification to teach, and may revoke the same. While unrevoked, such certificate shall be conclusive evidence that the person to whom it was granted is qualified by moral character, learning and ability to teach any common school in the State. Such certificate may be granted by him only upon examination. He shall determine the manner in which such examination shall be conducted, and may designate proper persons to conduct the same and report the result to him. He may also appoint times and places for holding such examinations, at least once in each year, and cause due notice thereof to be given. *He may also, in his discretion, issue a certificate without examination, to any graduate of a college or university who has had three years experience as a teacher. Such last-mentioned certificate shall be known as the "college graduate's certificate," and may be revoked at any time for cause. He may also, in his discretion, indorse a diploma issued by a State normal school or a certificate issued by a State Superintendent or State Board of Education in any other State, which indorsement shall confer upon the holder thereof the same privileges conferred by law upon the holders of diplomas or certificates issued by State normal schools or by the State Superintendent in this State. He may also issue temporary licenses to teach, limited to any school commissioner district or school district, and for a period not exceeding six months, whenever, in his judgment, it may be necessary or expedient for him to do so.*

2. CIRCULAR OF INFORMATION

The following information concerning college graduates' certificates is furnished for the benefit of those interested:

The Law

(From section 10 of title I, Consolidated School Law.)

§ 10. He (the State Superintendent) * * * * may also, in his discretion, issue a certificate, without examination, to any graduate of a college or university who has had three years' experience as a teacher. Such last-mentioned certificate shall be known as the "college graduate's certificate," and may be revoked at any time for cause. He may also, in his discretion, indorse a diploma issued by a State normal school or a certificate issued by a State superintendent or State board of education in any other

State, which indorsement shall confer upon the holder thereof the same privileges conferred by law upon the holders of diplomas or certificates issued by State normal schools or by the State Superintendent in this State.

The Purpose

The purpose of the college graduate's certificate is to relieve persons entitled to receive it from the necessity of taking examinations which would otherwise be required. It is in no sense a test of scholastic merit, but a privilege which the Superintendent may confer upon those deemed worthy. It is issued in the discretion of the Superintendent.

It is intended for the benefit and convenience of teachers actually employed in New York State, and of such as propose to follow the profession of teaching in the State. It is not intended for use of teachers who leave the State, nor for the purpose of securing advantage or position in this or other States.

Requirements

All applicants are informed that as these certificates are good for life in this State, they will not be issued until the Superintendent is in possession of the most conclusive evidence of the good character and ability of applicants, and is satisfied that they have taught successfully for at least three years since graduation. On these points the most satisfactory proof must be submitted. The names of a least three persons must be furnished as references who are known in educational work in the State, and at the Department, who are personally acquainted with the applicant and are familiar with the applicant's work as a teacher.

Applicants must show that they have taken a full course in, and have been graduated from a college or university of good standing. They must also show that they are actually teaching, or that they are under engagement to teach in New York State.

Ample time will be taken by the Superintendent for investigation in all cases. Haste must not be expected, and applicants are cautioned against making engagements which are contingent upon the issue of certificates, or upon the expectation that they will be issued within a fixed time.

Blank forms of application will be sent upon request.

State Certificates and Normal School Diplomas from Other States

Applications for the indorsement of State certificates and normal school diplomas issued in other States will not be approved, unless the State superintendents of such States extend a like

courtesy to holders of State certificates and normal school diplomas issued in this State.

Efforts have been made for concert of action in legislation among all the States, but thus far little has been accomplished.

The following States so far as known, recognize State certificates and normal school diplomas issued in New York State: Alabama, New Jersey, Maryland (limited in time and renewable except in Baltimore), Florida and Oregon.

CHARLES R. SKINNER,
State Superintendent.

It should be borne in mind that teachers employed in private schools and academies do not require certificates, and college graduates' certificates are not intended for such teachers. They are of no value to teachers in city schools, unless the boards of education in such cities accept a State certificate without further examinations. They are for the relief of persons entitled to receive them—for use and not for ornament.

3. LIST OF COLLEGE GRADUATES' CERTIFICATES GRANTED, 1896

Number	NAME	Residence	Graduated at	Year of graduation	Date of certificate, 1896
448	.....	Baldwinsville.....	Syracuse University.....	1892.....	January 7
449	.....	Lyndonville.....	Elmira College.....	1899.....	January 17
450	.....	Waddington.....	St. Lawrence University.....	1890.....	February 3
451	.....	Norwich.....	Oberlin College.....	1891.....	February 3
452	Ella Mahala Hall.....	Franklinville.....	Syracuse University.....	1892.....	April 6
453	William Fairfield Mercer.....	Randolph.....	Hilldale College.....	1890.....	April 6
454	.....	Stamford.....	Syracuse University.....	1896.....	April 6
455	.....	Hosick Falls.....	.....	1892.....	April 6
456	.....	Spring Brook.....	.....	1891.....	April 6
457	.....	Randolph.....	.....	1878.....	April 6
458	.....	Millbrook.....	.....	1891.....	April 6
459	.....	Syracuse.....	.....	1871.....	April 6
460	.....	Amsterdam.....	.....	1869.....	April 6
461	.....	Morrisville.....	.....	1892.....	April 16
462	.....	Victor.....	.....	1890.....	June 6
463	Fred L. Hannum.....	Sinclairville.....	.....	1890.....	June 6
464	Mary A. Porter.....	Cambridge.....	.....	1892.....	June 6
465	William E. Taylor.....	Randolph.....	.....	1894.....	June 6
466	Frederic A. Hilary.....	Randolph.....	.....	1893.....	June 6
467	Florence May Tose.....	Ellenville.....	.....	1893.....	June 6
468	William Cary Jodlin.....	Oxford.....	.....	1876.....	June 23
469	Myrtle A. E. Rice.....	Westfield.....	.....	1898.....	June 27
470	Emily Whiton.....	Prattburg.....	.....	1893.....	June 29
471	.....	Clinton.....	.....	1893.....	September 1
472	.....	Syracuse.....	.....	1893.....	October 1
473	.....	Schuyler Lake.....	.....	1893.....	October 1
474	.....	Albany.....	.....	1896.....	October 1
475	.....	Mexico.....	.....	1892.....	October 1
476	.....	Poultice.....	.....	1893.....	October 1
477	Eleanor L. Orr.....	Groton.....	.....	1892.....	October 1
478	William Wadsworth Miller.....	Monticello.....	.....	1893.....	October 1
479	Addison Brown Poland.....	New York.....	University of City of New York.....	1890.....	November 19
480	Howard J. Rogers.....	Albany.....	Williams College.....	1894.....	December 31

4. LIST OF NORMAL SCHOOL DIPLOMAS INDORSED, 1896

Number	Date of indorsement, 1896	NAME	Residence	Graduated at Normal School at
75	June 6.....	Laura Babcock.....	Unadilla Forks.....	Minnesota State Normal

5. STATE CERTIFICATES INDORSED, 1896

None.

EXHIBIT No. 15

TEACHERS' INSTITUTES

1. REPORT OF SUPERVISOR OF INSTITUTES
 2. REPORTS OF INSTITUTE CONDUCTORS
 3. REPORTS OF DRAWING AND PRIMARY WORK
 4. THE INSTITUTE LAW REGULATING ATTENDANCE
 5. STATISTICAL TABLES
-

TEACHERS' INSTITUTES

SUPERVISOR OF INSTITUTES

Augustus S. Downing, A. M. Albany.

INSTITUTE CONDUCTORS

NAMES AND ADDRESSES

Henry R. Sanford, A. M., Ph. D. Penn Yan.
Isaac H. Stout, A. M. Geneva.
Welland Hendrick, A. M. Cortland.
Archibald C. McLachlan, A. M. Binghamton.
Percy I. Bugbee, A. M. Oneonta.

SPECIAL INSTRUCTORS

Drawing — Miss Gratia L. Rice, P. O. box 321, Buffalo; Miss Florence B. Himes, Delaware avenue, Albany.

Primary Work — Miss Anna K. Eggleston, 45 Wadsworth street, Buffalo.

INSTITUTE LECTURER

Hon. Charles E. Fitch, LL. D. Rochester.

1. REPORT OF SUPERVISOR OF TEACHERS' INSTITUTES

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction*:

Dear Sir.—In reviewing the work of this bureau of your Department during the year just closed, it is a pleasure to report an improvement over any other year. It was said at the close of last year that the mark of efficiency of the institutes had been set so high that to reach it would be all that could be asked. The year just closed has raised the standard several points higher.

Your appointment of Percy I. Bugbee to fill the vacancy in the force of institute conductors was accepted by educators throughout the State as a guarantee of your determination to keep this agency for the training of teachers under the guidance of thoroughly skilled men. This maintenance of confidence in the ability of the

institute faculty has had much to do with the prosperity and success of the institutes.

One marked improvement in the work has been in the increased number of graded institutes. Wherever such institutes have been held there has been an enthusiasm and spirit never before known. The reports from these institutes have shown very gratifying results. The most valid criticism adverse to institutes heretofore made was that the instruction was given to a body of teachers representing all grades and that as a necessary result only a few were benefited by any given hour's work. The graded institute has entirely disarmed the critics. It has been my effort in supervising this work to aid the conductors and commissioners in securing the assistance necessary and best suited to each institute. From my own experience in conducting institutes, I am satisfied that this is a province of your Department that is of vital importance. The greatest care must be taken in the securing of assistance ample and competent, else the week's work may be rendered wholly unsatisfactory. For a graded institute of 150 or more teachers there should be assigned two of the regular conductors and I am, therefore, of the opinion that instead of five institutes per week it would be better to appoint only four and to detail one of the conductors each week to attend two institutes. This to be done in case two or more graded institutes occur in the same week. I have formed this conclusion from close observation of the working of graded institutes in which two of the regular conductors were present and by comparing the results thereof with those of the graded institutes in which all the responsibility fell upon one conductor.

The work in drawing has been a more marked success than in any previous year. When critics of this feature of the institute work stop to consider the tremendous burden placed upon the instructors of drawing I think they will be more just. Our instructors in this subject must demonstrate its usefulness, teach subject-matter and method all at the same time. While other branches have been taught in the schools always, this branch of study is of comparatively recent introduction. Hence the increased difficulty which attends the presentation of the subject at an institute. But improvement is being made and the demand for the instructors in drawing is almost always a part of the application for an institute.

The interest in the work done by the instructor in primary work is keener than ever and from reports and from observation I am convinced that in this field greater good has been accomplished than in any previous year.

Another noticeable improvement and one that must be most gratifying to you is the marked increasing appreciation of the historical lectures delivered by the institute lecturer. The teachers

and the people seem to be awaking to the pleasure and profit which these lectures afford. It is an evidence of improvement in two directions, the increasing power and efficiency of the lecturer, and the higher culture of the teachers.

The assistance supplied by the normal schools has, as a rule, been excellent. It is coming to be recognized by the principals of these schools that all the members of their faculties are not equally well fitted to do institute work, and, therefore, when a request for assistance comes to them they send only such persons as are able to do themselves and the school which they represent credit.

There is no diminution in the interest of larger communities in the work of the institute, but rather an increasing interest. The cities of Oswego and Watertown held institutes during the year and the teachers of both cities were enthusiastic over the work.

It was the rule during the year, rather than the exception as in former years, for boards of education and citizens to give the members of the institute a reception which added not only to the pleasure but to the profitableness of the institute.

The following table shows the results of the year in comparison with those other years:

	1893-4			1894-5			1895-6		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Teachers in attendance	3,061	12,546	15,607	3,473	12,869	16,342	3,474	12,748	16,222
Average attendance	2,967	12,242	15,209	3,299	12,639	15,938	3,411	12,584	15,995
Aggregate days' attendance			75,879			79,912			80,031
Local expenses			\$4,381 74			\$4,259 97			\$4,072 53
Number of institutes			111			108			106

The following table shows the comparison for fifteen years:

Comparative Summary of Teachers' Institutes for Fifteen Years.

YEAR	Number of counties	Number of institutes	Number of teachers in attendance	Average daily attendance	Per cent. of average attendance to total number of teachers	Aggregate number of days attendance	Days of attendance per teacher	Average number of teachers per institute	Amount paid by the State	Average expense per institute	Average expense per teacher
1882	58	73	13,231	9,122	68.94	45,607	3.44	181	\$16,040 72	\$219 73	\$1 24
1883	58	78	14,477	10,231	70.67	50,915	3.52	196	15,770 66	216 03	1 68
1884	58	71	14,770	10,272	69.54	51,393	3.48	208	16 926 81	238 40	1 14
1885	58	72	18,295	14,378	78.59	71,932	3.93	254	18,433 21	256 01	1 00
1886	58	77	17,739	14,925	84.13	74,639	4.21	230	18,986 95	246 60	1 07
1887	56	89	14,818	13,274	89.58	66,340	4 47	166	18,555 54	208 48	1 25
1888	58	110	16,214	15,138	93.36	75,031	4.63	147	24,227 81	220 25	1 49
1889	59	112	16,315	15,556	95.35	76,652	4.69	146	24,296 75	216 93	1 49
1890 (a)	55	93	12,699	12,105	95.99	60,112	4.76	137	19,573 84	210 47	1 63
1891 (b)	57	109	15,075	14,450	95.85	70,766	4.69	138	23,144 41	212 33	1 54
1892 (c)	47	70	9,329	9,018	96.66	45,043	4.82	132	13,217 66	197 39	1 48
1893 (d)	59	110	15,430	15,002	97.22	74,220	4.81	140	28,046 62	254 97	1 87
1894	59	111	15,607	15,209	97.45	75,879	4.86	141	35,212 74	317 32	2 31
1895	57	108	16 342	15,938	97.53	79,912	4.89	151	36,748 49	340 26	2 25
1896	57	106	16,222	15,995	98.6	80,031	4.93	153	35,071 86	330 86	2 16

(a) For eleven months. (b) For year ending Dec. 1, 1891. (c) For eight months ending June 13, 1892. (d) For school year 1892-3.

As in the year previous the schools of Hamilton county were visited by Conductor Sanford, in company with the school commissioner, instead of holding a regular institute. The smaller number of institutes was due to the uniting of districts for a graded institute, as shown in the statistical table. The number of teachers in attendance was less than in 1895, but the aggregate attendance and per cent. of attendance were greater.

The number of teachers per institute was greater than in 1895, but the entire cost and average cost per institute, as well as the average cost per teacher, were less than in that year. Taken all in all the year of institute work just closed has been one of remarkable advance and efficiency.

SUMMER INSTITUTES

Under the provisions of chapter 156, Laws of 1896, arrangements were made for three summer institutes to be held simultaneously at Glens Falls, Chautauqua and Thousand Island Park.

The following table shows the attendance at each institute, and for a more extended account reference is made to the appended report of each institute's conductor.

SUMMER INSTITUTES

PLACE	Number of instructors	REGISTERED MEMBERS		
		Men	Women	Total
Chautauqua	21	35	221	256
Glens Falls.....	20	22	316	338
Thousand Island Park	18	24	161	185
Total.....	59	81	698	779

CHAUTAUQUA

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction:*

I respectfully submit the following report as a conductor of the State Summer Institute at Chautauqua:

The faculty was constituted as follows:

Isaac H. Stout, A. M., conductor and instructor in bookkeeping and school law; Walter L. Hervey, Ph. D., pedagogy; Franklin L.

Baker, language and literature; Martha Van Rensselaer, Alice A. Roth, Gertrude Berry and Edith Palmer, drawing; Sarah C. Brooks, instructor in primary work; George E. Bullis, algebra and arithmetic; S. H. Clark, elocution; Richard E. Dodge, geography and geology; Edna E. Fay, drawing and modeling; Francis E. Newton, kindergarten methods; P. M. Hull, history and civics; Florence J. Parker, geography, language and grammar; J. F. Reigart, psychology; Irving P. Bishop and Anna Schriver, science; additional instructors were Maude Baldwin, Mari Hofer and Charlotte Picket.

Registration opened Monday afternoon, July 13, and was kept open until Monday, July 27, at which time we had registered 256 members. In this membership 37 counties of the State were represented, and 20 of its cities. The average experience of the teachers enrolled is seven and one-eighth years. Only 35 men were registered, as against 221 women. There were 362 class enrollments in the purely pedagogical courses, as against 235 in the drill and review department, a result to be expected from a body of teachers of so extended experience. Following is given the number enrolled in each class in each department:

DRILL AND REVIEW		PEDAGOGY	
Arithmetic	25	Drawing	37
Algebra	19	General Literature.....	14
Geography	11	English Composition.....	19
English Grammar.....	24	Psychology	29
American History.....	19	General Pedagogy.....	38
Civics	23	Primary Methods.....	63
Astronomy	2	Grammar School Methods.....	25
Physics	30	Kindergarten Methods.....	16
Geology	3	Kindergarten Music.....	15
Drawing	57	Kindergarten Theory.....	3
Bookkeeping	25	Nature Study.....	28
		Reading	20
		Physical Geography.....	10
		Physical Training.....	30
		Laboratory Methods.....	15

The regularity of attendance, as shown by aggregate number of days is remarkable, in view of the fact that many were late in arriving, owing to their inability to secure definite information in regard to the scope of the work. This was especially the case with teachers from the cities. Another cause for absence was the railroad limitation to July 31 of tickets from Buffalo, purchased under the N. E. A. agreement.

I can speak only in commendatory terms of the spirit and work of the teachers in attendance, satisfied, as I am, that they were doing their best to realize for the State what was intended to be secured by the establishment of the summer institutes. To the able

corps of assistants in the drill and review department belongs much of the credit for whatever success has been attained, complementing, as it did, the work of able instructors in the Chautauqua School of Pedagogy. I also enclose as a part of this report, resolutions adopted by the teachers and handed to me after the close of the institute.

The authorities at Chautauqua spared no effort to make our meeting successful and our stay pleasant, and I take this opportunity to make public acknowledgment of the many courtesies extended by them to all connected with the institute.

CHAUTAUQUA STATE SUMMER INSTITUTE
Daily Program

SCHOOL OF PEDAGOGY							DRILL AND REVIEW						
Time	N. H.	A 1	A 2	B 1	B 2	Kellogg	C 1	C 7	C 9	C 10	C 12	B 1	B 2
8:30-9:30	Psychology	Nature Study	Geology	English Literature	Elementary Drawing				Algebra	Geography			
9:30-10:20	Pedagogy	Nature Study	Physical Geography		Elementary Drawing								
10:20-11:10	English composition				Advanced Drawing							Grammar	
11:10-12:00	Primary Methods		Grammar School Methods						Arithmetic				

2:00-3:00		Nature Study				Kindergarten, music and theory	Book-keeping	Civics (School Law)			Astronomy		
3:00-4:00	Physical training	Nature Study					Physics				American History		
4:00-5:00						Kindergarten methods							Drawing

RESOLUTIONS

Whereas, It is the policy of the Educational Department of the State of New York to encourage and promote the professional training of the teachers of the State; and,

Whereas, Institutes were established and maintained this summer at Chautauqua, Glens Falls and Thousand Island Park for the benefit of and free to all teachers and persons intending to become teachers of the schools of the State; and,

Whereas, It is the sense of the members of the State Summer Institute of Chautauqua that fitting manifestations be made of their appreciation of the same;

Therefore, We, the members of the State Summer Institute of Chautauqua resolve, that our thanks be extended to the Governor, Legislature and people of the State of New York for the appropriation to establish such institutes; to Superintendent Charles R. Skinner for appointing one of such institutes to be held at Chautauqua; to Chautauqua for receiving the institute, and to Conductor Isaac H. Stout for his able organization of the institute here.

That we appreciate the opportunity for instruction and training and the advantages afforded here at Chautauqua for such, and therefore respectfully petition the legislative and executive powers of the State for an institute at Chautauqua next year.

That we are indebted to the Chautauqua management, faculty, teachers, assistants and all others who have engaged in promoting or have contributed to our welfare and the success of this institute to the full measure of our gratitude.

That a copy of these resolutions be submitted to the Department of Public Instruction and the same published in the Assembly Herald, School Bulletin and Jamestown Journal.

Mrs. MINNIE WADE,
Miss EDNA A. CLARK,
H. L. AMES,
L. F. SOULE,

Committee.

All of which is respectfully submitted.

ISAAC H. STOUT,
Conductor.

THOUSAND ISLAND PARK

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction:*

Dear Sir.—In accordance with your instructions, a summer institute was held at Thousand Island Park, Jefferson county, from July 14 to August 6, inclusive.

The following instructors were present:

Psychology and Pedagogy, Samuel H. Albro, Ph. D., State Normal School, Mansfield, Pa.; Methods in Mathematics and History, Welland Hendrick, State Institute Conductor; Methods in Reading and Geography, A. C. McLachlan, State Institute Conductor; Methods in Grammar and Reading, Henry R. Sanford, State Institute Conductor; School Management, W. H. Whitney, Athens, N. Y.; Historical Lectures, Charles E. Fitch, State Institute Lecturer; Sciences, Darwin L. Bardwell, State Normal School, Cortland, N. Y.; Organization and Management of Teachers' Training Classes, A. S. Downing, Supervisor of Teachers' Institutes and Training Classes; Elocution and Rhetoric, Henry Ludlam, Philadelphia, Pa.; Primary Work and Methods, Anna K. Eggleston, State Institute Instructor; Ida M. Isdell, State Normal College, Albany; History and Philosophy of Education and Art of Questioning, Charles A. Shaver, Clayton, N. Y.; Drawing, Miss Florence B. Himes, State Institute Instructor; Arithmetic, Algebra and Geometry, Miss Caroline Coman, Hamilton, N. Y.; Bookkeeping, Penmanship and Commercial Arithmetic, William R. Glen, New York; Civil Government and School Law, Edward L. Stevens, Superintendent of Schools, Catskill, N. Y.; Vocal Music, Joseph Mischka, State Normal School, Buffalo, N. Y.; Physical Culture, Mrs. Amy P. Blair, Supervisor Physical Culture, Toledo, Ohio.

The daily program of work was as follows:

8:15—8:55. Physical culture, geography, penmanship.

9:00—9:40. Advanced drawing, psychology, civil government, algebra review, geology.

9:45—10:25. Drawing, special, primary methods, American history, arithmetic review, physics.

10:30—11:10. Drawing, review; primary methods, geography, arithmetic methods, astronomy, school management.

11:15—11:55. Drawing methods; psychology, grammar, commercial arithmetic, algebra methods, chemistry, botany.

12:00—12:40. Reading methods, physiology, bookkeeping, history of education.

2:00—2:50. Physical culture, elocution.

3:00—3:50. Vocal music.

The registered attendance was 185. Besides these, teachers from other States and many present for a short time and not registering made the actual attendance two hundred or more, all that, under the circumstances, could be satisfactorily instructed.

The members of the institute were evidently from the more progressive class of teachers. Many were present for mere subject matter, preparatory for examinations; but the best tone was given to the work by the large number who wanted professional training.

The average number of terms taught was 12.7. Only nine had never taught. The veteran in service was Superintendent Barney Whitney, of Ogdensburg, with 80 terms (40 years), to his credit. With over twenty of his teachers present he contributed much to the enthusiasm of the school.

The counties of the State were represented as follows:

Jefferson, 59; St. Lawrence, 38; Oneida, 16; Oswego, 14; Ontario, 11; Lewis, 7; Onondaga, 4; Orleans, 4; Chenango, 3; Herkimer, 3; Monroe, 3; Rennselaer, 3; Steuben, 3; Westchester, 3; Albany, 2; Essex, 2; Livingston, 2; Cayuga, 1; Fulton, 1; Genesee, 1; Otsego, 1; Schenectady, 1; Schuyler, 1; Ulster, 1; Tompkins, 1.

The different sections of the State were represented as follows:

Northern New York, 120; Central New York, 30; Western New York, 24; Eastern New York, 11.

In addition to the regular class work, lectures were delivered during the session of the institute as follows: On "Eminent Men I Have Met," by Col. A. D. Shaw, of Watertown; on "Robert Burns," by Wallace Bruce, of Brooklyn; two lectures illustrated with stereopticon by S. R. Stoddard, of Glens Falls; a series of historical lectures, on Samuel Adams, George Washington and Daniel Webster by Hon. Chas. E. Fitch, State Lecturer; on School Law by Supervisor, A. S. Downing; on The Uniform Examinations by Thomas E. Finegan; on The Pedagogy of Herbart by Dr. S. H. Albro; and in addition an address by State Superintendent Charles R. Skinner. A spelling contest was held during the closing week of the school and prizes of International dictionaries were awarded, the first to Kate E. Smith, of Lansingburg, Rennselaer county, and the second to M. Belle Toomey, of West Bloomfield, Ontario county.

Excursions to different points on the St. Lawrence were furnished at moderate cost, and were enjoyed by a large number. One of the most pleasant features of the recreative part of the institute was the free excursion to St. Lawrence park, provided by the State Superintendent, and the reception given the members of the summer school by Mr. and Mrs. Skinner.

Note should be made of the efforts put forth by the managers of the Thousand Island Park Association in behalf of the summer school. The assistance of Dr. William Searles was especially valuable.

In view of the experience of the summer, I would respectfully offer the following suggestions in case the policy of continuing the work is adopted: First, that the term "school" expresses more nearly the work attempted than "institute." Second, that the range of work should not be widened, but perfected along the lines already laid out; that quality rather than quantity be the criterion, that a special line of work be well done, rather than the attempt made to rival with multiplex departments certain summer schools. Third, that while the banks of the St. Lawrence are ideal in many respects for this work, two conditions are further essential, suitable class rooms and a moderate charge for private rooms and board. A four to six room building, with substantial walls, well equipped, should be at the service of such a school; and good rooms with board ought to be obtained by members for \$5 a week.

WELLAND HENDRICK,
Conductor.

GLENS FALLS

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction:*

Dear Sir.— I have the honor to submit the following report of the summer institute held at Glens Falls from July 14 to August 1, 1896:

The institute consisted of three separate departments, the Drill and Review department, the Training Class department and the department for Professional Training, the latter in its faculty and management being merged in the National Summer School of Methods, which has been regularly held at Glens Falls for a number of years. The several departments were under the instruction of the following faculties: Drill and Review Department, Natural Science, Principal W. D. Johnson, Cooperstown, N. Y.; Arithmetic and Algebra, Principal George Winslow, Binghamton, N. Y.; Book-keeping, Principal E. E. Lautman, Binghamton, N. Y.; Plane Geometry, Principal H. T. Morrow, Elmira, N. Y.; History and Current Topics, Principal Ernest E. Smith, Cambridge, N. Y.; Composition and Rhetoric, Superintendent A. Hall Burdick, Stapleton, N. Y.; Civil Government and School Law, Principal H. T. Morrow, Elmira, N. Y.; Grammar and Analysis, Superintendent A. Hall Burdick, Stapleton, N. Y.; Drawing, Miss Gratia L. Rice, Buffalo, N. Y.; Methods and School Economy, Miss Anna K. Eggleston, Buffalo, N. Y.; Philosophy of Education, Principal Judson I. Wood, Ilion, N. Y.; Training Class Department, Organization and Management of Teachers' Training Classes, Augustus S. Downing, Supervisor of State Teachers' Institutes and Training Classes;

History and Philosophy of Education and Art of Questioning, Principal Judson I. Wood, Ilion, N. Y.; Psychology, Dr. Richard G. Boone, Ypsilanti, Mich.; Methods, Miss Gertrude Bacon, State Normal School, Buffalo, N. Y.; Drawing, Miss Gratia L. Rice, State Institute Instructor in Drawing; Professional Training Department, Psychology and Pedagogy, Dr. Richard G. Boone, State Normal School, Ypsilanti, Mich.; Primary Work and Methods, Miss Anna K. Eggleston, State Institute Instructor; Methods in Arithmetic, George T. Aldrich, Superintendent of Schools, Newton, Mass.; Reading and Elocution, Henry S. Southwick, Emerson College of Oratory, Boston, Mass.; Advanced Reading, George I. Aldrich, Superintendent of Schools, Newton, Mass.; Language and Grammar, and Literature and Grammar and High Schools, R. C. Metcalf, Supervisor of Schools, Boston, Mass.; School Management, R. C. Metcalf, Supervisor of Schools, Boston, Mass.; Sherman Williams, Superintendent of Schools, Glens Falls, N. Y.; Methods in History, W. F. Gordy, Principal of Schools, Hartford, Conn.; Methods in Geography, Chas. F. King, Principal of Schools, Boston, Mass.; Historical Lectures, Charles E. Fitch, State Institute Lecturer, Rochester, N. Y.; Natural History, Austin C. Apgar, State Normal School, Trenton, N. J.

A very large majority of the teachers in attendance were in the Drill and Review department, the attendance in the other departments being comparatively very small; although it is fair to say the lectures on Professional Training would have been more largely attended by New York teachers had they not conflicted in time with the classes in the Drill and Review department.

The attendance in all departments was regular, and great interest in the work was manifested. I believe that the work of the institute was sufficiently varied and comprehensive to meet the needs of those who attended, and I doubt if it would be good policy for the State to increase the number of departments, should the summer institutes be continued.

Although Glens Falls is considerably to one side of the main lines of railroads and although only three roads, the Delaware and Hudson, the Fitchburg and the Boston and Albany, gave any concession in rates, the attendance at the summer institute numbered 356, and the delightfulness of the locality compensated for the long journey required of some. There are few places in the State so rich in historical associations and so beautiful and varied in scenery as the country about Glens Falls, and frequent excursions to these localities, under efficient guidance, afforded pleasant recreation.

The accommodations at hotels and private houses were ample and prices were reasonable.

Very respectfully.

PERCY I. BUGBEE.

2. REPORTS OF INSTITUTE CONDUCTORS

REPORT OF HENRY R. SANFORD, A. M., PH. D., INSTITUTE CONDUCTOR.

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction*:

Dear Sir.—The past year has shown unabated interest in the work of teachers' institutes. This has, as in the past, been especially true of the teachers of the best education and largest experience.

The raising of the minimum age of teachers to 18 years is bringing into the service a larger number of mature teachers, and this will materially increase the efficiency of the teaching service.

The people, with wonderful unanimity, have accepted the law of compulsory attendance as a permanent feature of our school system, and the largely increased attendance at the schools is very marked. Through the explanations of the law given at the institutes the teachers and, through them, the people, have come to understand the provisions of the law.

I had considerable experience in the work of graded institutes many years since, both in this State and in an adjoining State. When the teachers are separated into grades during most of the time of the institute, the results are not as satisfactory as when not over a third of the time is devoted to graded work. Teachers doing class-room work in certain subjects only are greatly benefited by having a number of institute exercises devoted to their specific work, but teachers of single schools, who are personally responsible for all of the teaching and executive work of the schools, and also all superintendents and supervising principals are deeply interested in all the exercises of the institute.

During the past year I have made unusual efforts to secure the attendance of the citizens of the locality in which institutes are held, and in this I have met with marked success; it is believed that the effect upon the people will be decidedly wholesome. While it is well to induce the people to attend the day exercises to a considerable extent, it is still more important to secure a very large attendance at the evening lectures. These should be popular rather than pedagogical. The teachers, wearied by close attention to professional work during the day sessions, should also have the benefit of popular lectures in the evening. Doubtless with this end in view, you very wisely secured a series of historical lectures by Dr. Charles E. Fitch. They have been admirable in selection of material, scholarly in diction, and eloquent in delivery. These lectures have been delivered to large and enthusiastic audiences, and must greatly stimulate love for our country and its noble founders.

During the summer of 1895 I went to Mexico to collect materials for a stereopticon lecture on that country, and at my institutes during the past year I have given this lecture, which has met with a very hearty reception, and has attracted very large audiences. In accordance with arrangements made with yourself, I visited southern Florida and the Bahamas last winter to prepare for a similar lecture on those localities.

In response to the request of Commissioner McCoy I was again sent to Hamilton county to hold local institutes, and with the commissioner, to visit all of its schools. I have thus, for eight consecutive years, been laboring through the medium of institutes and visitations, to aid the commissioner in advancing the interest of the schools of that county. The results have, I think, been fully equal to the fullest expectations.

During the recent tour I held a local institute in each of the following places: Wells, Indian Lake, and Long Lake; and six evening lectures in as many different places. Five of the lectures were illustrated. The people were thus called together in large numbers, and through that medium the attempt was made to greatly increase the popular appreciation of education. Commissioner McCoy may justly point with pride to great advances made in all the schools of this county during this six years of official service.

Very respectfully,

HENRY R. SANFORD.

PENN YAN, N. Y., *September 12, 1896.*

REPORT OF ISAAC H. STOUT, A. M., INSTITUTE CONDUCTOR.

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction:*

Sir.— The following annual report for the year ending July 31, 1896, is respectfully submitted: My institute work has been done in 24 commissioner districts, in 20 counties, and in the State Summer Institute at Chautauqua, of which a detailed report has already been submitted. Of the regular institutes, four were graded, 46 periods of work having been given in each.

These institutes were highly successful, and satisfactory to the teachers in attendance. The greatest difficulty to be met in the graded institute, when held during the busy part of the year, is the securing of sufficient competent help. Frequently the con-

ductor has only five or six exercises from the regular instructors, and the normal schools are complaining that too great a demand is made upon them for assistance. If the number of graded institutes is to be increased, there should be more regular help employed by the Department, and I am convinced that the greater efficiency thus secured would entirely justify the increased expenditure. In 15 of the remaining institutes there were held in each, from four to eight sessions of a high school or principal's round table conference for the special benefit of the more advanced teachers, and the results substantiate the opinion given in my report for last year.

In all the institutes under my charge, the law relating to the presentation of the subject of alcholic stimulants and narcotics has been complied with, and full and free opportunity for discussion has been given to all members of the institute.

Public interest in institute work continually increases, until the large attendance at the sessions is frequently an embarrassment, because of the lack of room. I am, however, of the opinion that full compensation for any such inconvenience is found in the greater harmony between our teaching force and the public that naturally follows a more thorough understanding of the teachers' aims and methods.

The success of the spelling contests in arousing interest in that branch of common school work, is suggestive of an opportunity to awaken an interest in the careful teaching of correct pronunciation, through concerted action in the institutes, while probably no more important work in subject-matter can be accomplished through their agency.

The requirements for examination in school law for all grades of certificates also seem to demand a careful presentation of that subject along such lines as the Department shall deem desirable, and that outlines of the work to be covered should be presented in the institute.

In conclusion I deem it but just to state that to your active interest in institutes, and to the careful and judicious oversight of details by Supervisor Downing, must be given much of the credit for good results from the work the year just past.

My hearty appreciation of the uniform courtesy and kindness of my associates on the institute force, and of all others connected with the Department, is hereby acknowledged.

Respectfully,

ISAAC H. STOUT.

REPORT OF WELLAND HENDRICK, A. M., INSTITUTE CONDUCTOR.

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction:*

Dear Sir.— I submit one or two suggestions arising from my past year's experience in institute work:

The Institute Room

I think it is good policy to put more stress on the fitness of the room in which the institute is held. The week's work and expense is often largely wasted, and teachers leave with colds and other illness, on account of ill-heated, poorly-lighted and unventilated session rooms. In spite of the noticeable increase of modern, roomy, ventilated school buildings in the State, one-half of my institutes, last year, were held in halls, one or two good, more poor, and some vile. In more than one such instance, a good school building was available, in a town as accessible, or more so, than the one selected for the institute. I suggest that the importance of a good room, a school-room if possible, be impressed upon the minds of the commissioners.

Voluntary Attendance

I note the increasing desire for institute work on the part of teachers exempt from attendance. During the past year I have had the teachers of Hoosick Falls, Niagara Falls and Geneva in regular attendance, and the teachers of Middletown, Johnstown and Hudson were present at part of the sessions of the institute in their district.

Official Visits

The year's work was notable for the many visits from the officers of the Department of Public Instruction. The presence of yourself, Deputy Superintendent Ainsworth and Supervisor Downing and others has been an inspiration to teachers and instructors. The better personal acquaintance of department officers and the public school teachers may be set down among the advances of the past school year.

I congratulate you on the thorough good feeling and the hearty loyalty evinced on the part of the teachers under your directing care.

Respectfully,

WELLAND HENDRICK.

August 1, 1896.

REPORT OF A. C. McLACHLAN, A. M., INSTITUTE CONDUCTOR.

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction*:

The teachers' institutes of the year 1895-'96 have afforded gratifying evidence of improvement. The uniformly large and regular attendance upon the sessions, the cheerful compliance with added requirements, the manifest improvement in professional spirit, and the almost universal desire on the part of teachers to attain to higher scholarship and to excellence in pedagogical work have made the institutes of the year both pleasant and inspiring.

The advancing requirements of the uniform examinations are bringing into the institutes a larger number of normal graduates; the improved regulations for teachers' training classes are introducing a more scholarly and earnest class of young people who give promise of becoming excellent teachers; and the law prohibiting the issuing of certificates to persons under eighteen years of age is excluding a large number of young and immature teachers, and giving place to a corresponding number of mature and better qualified workers.

Many of the institutes held during the year have been partially graded. This feature has been generally approved. In my own judgment it should be adopted only in districts where there is a sufficient number of graded schools, and where a sufficient number of competent instructors can be had. Graded institutes with many second-rate instructors are not inspiring.

The efforts put forth by the Department for many years to introduce drawing, through the institutes, into the schools of the State are at last producing good results. Teachers now know more than the vocabulary of drawing. They are beginning to think and express in colors and lines. The progress made during the past year in this branch is encouraging. The new manual issued by the Department is proving of much assistance to the teachers.

As the standard of scholarship in the profession is being raised there is less need of instruction in subject-matter in the institutes. The work, therefore, is becoming more strictly pedagogical in character, and hence more satisfactory in results.

Many institutes are very profitable because of the strong pervading influence of competent commissioners; others are much less profitable, because of the absence of such influence. As the standard of qualifications for teachers is being raised, it is altogether inconsistent and absurd that the standard of qualifications for supervising officers should be very low.

A. C. McLACHLAN,
Institute Conductor.

REPORT OF PERCY I. BUGBEE, A. M., INSTITUTE CONDUCTOR.

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction*:

Dear Sir.—I have the honor to submit the following report of my institute work for the year.

I have conducted twenty institutes and have assisted at three others; and I have been gratified to find so general a professional spirit, so much zeal and earnestness among our teachers for improvement, so much pride in our educational institutions, and such hearty and generous appreciation of the work of the Department in promoting educational progress. The one-time disposition to criticise which prevailed in institutes has almost, if not altogether, disappeared; and from my journeying about the State, I am convinced that the advance of education in New York has much promise in the spirit of our teachers. I have seen, too, that the teachers realize their own needs as well as the needs of their school—which goes a long way toward growth—and that the institute is a means of the greatest helpfulness.

In several districts where I have been the institutes have been graded, and, in my opinion, this form has much to commend it where conditions are favorable. It is undoubtedly true that the discussion of any phase of educational work ought to be of interest to any teacher, regardless of his particular work; and many are capable of appropriating good from such discussion, but at the same time the truth remains that with a large number of our young teachers there are pressing personal needs and problems which seem to require immediate help; and for such, the greater number of periods of the graded institute, the smaller number of teachers in the sections, promoting more freedom and candor in discussion, the greater personal element in the work, for such of our teachers, and they are many, I believe the graded institute has advantages.

I need not mention the large improvement of the institute since the introduction of special instruction by the Department. You have already seen the change it has wrought in our teachers and in our schools, and I can only add that in the institute the zeal of the teachers in these special departments and their appreciation of the work of the instructors bears abundant witness of its further usefulness.

From the impetus given to the study of history, biography and civics through the lectures on these subjects at the institutes during the last two years, I predict we shall reap largely in a stronger patriotism and a better citizenship.

I have received able assistance from the normal schools, as well as from local teachers, in nearly all the districts. The advantage

of getting part of the work from local assistance is apparent, and I have generally been best satisfied with results when in that manner we have come near to the personal needs of the teachers in the locality.

The commissioner is, from his acquaintance with schools and teachers, in a position to suggest lines of thought, and, in a variety of ways, to make the work of the institute pertinent. He is, essentially, a school and not a political officer, and I have observed that the duties and the opportunities of the office are coming more and more to be realized. I have, in many instances, received valuable suggestions—as I have always received the heartiest assistance—from the commissioners with whom I have worked.

I have been more than gratified by the attendance of members of the Department at many of my institutes, and would acknowledge the encouragement and inspiration it has given to the work.

In concluding, allow me to express my appreciation of the generous and cordial support which I have at all times received from yourself and your associates.

Very respectfully,

PERCY I. BUGBEE.

ONEONTA, N. Y., August 1, 1896.

REPORT OF HON. CHARLES E. FITCH, LL. D., INSTITUTE LECTURER.

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction*:

Sir.— Having finished my work in the spring institutes of 1896, I beg leave, respectfully, to report to you concerning the same. I was assigned to 32 appointments, and have filled these assignments with the following exceptions: Johnstown, from which I was excused by Supervisor Downing, at my request, to fill an engagement in Rochester; Homer, which I failed to reach by reason of missing a train from Syracuse; Flushing, Clayton and Preston Hollow, from all of which I was excused by Supervisor Downing, as being unnecessary to meet, and Norwich, which I attended, but at which an audience sufficiently large to render a lecture profitable failed to materialize. I have spoken, therefore, in all, 26 times. At Canandaigua and Owego, I lectured on “Robert Burns.” At all other places I have given “Abraham Lincoln,” which was uniformly demanded by conductors and commissioners. The Lincoln lecture has now been delivered before nearly all the institutes, and must henceforth be abandoned.

In most cases, I have had large and appreciative audiences. I am quite sure that they have been more sympathetic than were those of a year ago, and must conclude, either that my theme appealed more persuasively to them, or that they are being educated to a deeper interest in subjects relating to American history. I trust that the latter inference is correct, for I am in hearty accord with you in the view that the teachers of our public schools should become familiar with the history of the republic, and the lessons it embraces, and, through their knowledge, increase in earnestness in inculcating the spirit of patriotism in the hearts of their pupils. An institute audience, of course, contains something of crude material, and something of an ignorant material, attracted to the auditorium because the show is a free one; but I believe in its major portion, desirous of being instructed, as well as entertained. Aside from my personal association with the work, I sincerely think you are wise in varying the evening entertainments with illustrated lectures, with the earnestness spiced with wit which has given Mr. Downing such a hold upon his audiences, and with the graver discourses of some of the conductors and normal school instructors, and in which class I suppose my addresses are to be included.

Generally speaking, I am convinced that the institute lectures should be maintained. They are helpful to the institutes and good for the communities — in the main, comparatively small places, which receive little of intellectual stimulus, aside from such lectures, university extension courses, and the study clubs that have been organized in some of them. It seems to me that commissioners should be more impressed than they are with the duty of giving prior notice of the lectures, aside from the programme, which circulates mainly among the teachers. In many of the districts this duty is greatly neglected. In a number of places, after the event, I have been told by citizens that they were ignorant that a lecture was to be given, and have expressed regret that they had not been notified. An admonition, in this regard, addressed to the commissioners would probably remedy the defect, which is doubtless due to inadvertence on their part. Some commissioners, as you know, have something to learn.

I doubt whether a Monday evening lecture is wise. Those engaged in the institutes prefer to have that evening set apart for social purposes, and the Monday evening lecturer is neither so welcome, nor greeted with such good-sized audiences, as later in the week. I do not suggest the dropping of that evening from the lecture programme on account of my own reluctance to fill an appointment. Should you deem it desirable, I am quite willing to be assigned to a period in an institute on that day, and some of the conductors have suggested that this be done, but my convic-

tion is very clear that it were better to do away with an assignment for Monday evening for the reasons indicated. For the ensuing season, I have outlined in my mind several subjects, upon which I intend to speak. "The Empire State," and "An Evening with the American Poets," are two of these. I also mean to recast "The Making of the Nation" — eliminating, rearranging, and reforming it with a unity it does not now possess. These, with the single subjects in American history, will furnish me with a sufficient repertoire, and I trust that my work may grow in interest as well as in profit to the institutes. I respectfully submit my plan to your judgment, thankful for any suggestions that you may be pleased to favor me with. I am thoroughly interested in the work myself with, I trust, the principal object in view to do something toward enhancing the course of popular education in New York.

I need not repeat what I have before said of my esteem of the value of the institutes, in the inspiration and equipment of the teaching force, nor my appreciation of the admirable manner in which they are administered. With larger experience comes larger apprehension of their supreme significance. From conductors and commissioners I have received uniform courtesy. For yourself please receive the continued assurance of my high regard and my thanks for your confidence and kindness.

Very respectfully yours,

CHARLES E. FITCH.

ROCHESTER, *June 6, 1896.*

REPORT OF GRATIA L. RICE, INSTRUCTOR IN DRAWING.

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction:*

Dear Sir.—The work of the past year has been on a line more direct to a certain purpose, namely, to place the teachers in a position to understand the work at hand, also to be in an attitude of independence regarding all work to come, so far as the mental grasp of the subject is concerned.

Reports and exhibits have been received at various times, from many parts of the State, in response to an inquiry regarding the success or failure in the presentation of the work in color during the year. The teachers have been introducing the color and nearly all report a keener sense of discrimination and appreciation, and a refining influence growing out of the color instruction. This work brings the teachers and pupils in direct contact with nature, whose

storehouse is filled with treasures to meet the demands of the teacher or the fancies of the pupils, and leads directly to the threshold and into the heart of aesthetics. As the work is manifold, perhaps we have been attempting to do too much in the limited time, as the fact will appeal to any intelligent person that it must take years to bring 40,000 teachers into line, or to move so great a body for any purpose.

We are frequently obliged to see combinations of color which not only violate every principle of art, but outrage the senses. If children are not taught to discriminate between some of the outrageous posters (so prevalent at this time), which are desecrations of the pictorial art, what can be expected but at first a faulty taste and eventually coarseness. I quote a few lines which fully express the incongruities and recklessness of artists (?) and the influence of a "fad" against the standard and fundamental principles, and pleasure of good art.

"A sky-blue cow,
And a purple pig;
A sea-green horse,
And a yellow gig;
An indigo maid,
And a saffron lad;
Is Art—high art,
To the poster mad."

Color is enhanced by association of ideas e. g., green is grateful to the eye; it reminds the observer of rural scenes, and of field and forest; blue of the immensity and serenity of the sky; yellow of the golden tints of sunset; white ever the emblem of purity and innocence; while red suggests splendor and gorgeousness. What lover of art, what parent, what teacher who desires a bright and moral future for our land, can look with indifference upon the drift of the lithographers, and disregard the importance of the work in the schools through which so much of culture and happiness may be gained.

If the sense of beauty is universal and intuitive, the question arises why the monstrosities of bad color combinations, which are before the country at the present time? With the training which the class teachers have been able to give in color, and the work planned for the future, we may hope to do much toward counter-influencing the pupils of to-day, and should the work continue in the schools through years to come, none of the past or present crudities will be accepted by the people. The foregoing reference to the work in color is to again place before the public the fact that while much of the work in drawing seems to be of a mechanical nature, we have not forgotten for a moment the inestimable value of the culture side of the question, and are striving to bring the work

to such a focus that our purpose may be clear to all, and that none of the needs of the various classes who patronize the public schools shall be neglected.

For those who may never enjoy the privileges of the higher schools we follow a mechanical line which will be of use to each and all, in whatever walk in life fortune or chance shall place them. The instruction has been of such a character that it can be adapted to any particular need of the pupil.

The work done in the institutes has been based upon science, that accuracy might attend the work, and to avoid the many and oft-expressed opinions of those interested only in their particular publications. We are striving to lay such a foundation that the personality of the pupil shall be in evidence instead of the mannerisms and peculiarities of systems of drawing. With the fundamental principles well fixed, the teachers and students will be able to adapt their knowledge to the occasion and can eliminate all of the unnecessary and meaningless work.

Our purpose is to make drawing a language by the aid of which can be better expressed the various thoughts of the pupils. This aid to satisfactory expression must be based upon definite plans and a scientific understanding of the matter, through which the mind may become stronger and its activity healthier.

Furthermore, the teachers and pupils must become familiar with governing principles that they may read pictures intelligently, and to so understand drawings that a correct judgment may be formed regarding the same. The issuing of a pamphlet to cover the above mentioned conditions will be a step in the right direction.

The stride between the studio and the school is a great one, and methods of the studio can never be brought into the public schools. This fact ought to forever quiet the stupid suggestions which are frequently heard regarding some fancied improvement.

After the teachers have become familiar with the various principles set forth, it must remain with them to decide whether the lesson should be on a basis of object drawing or that of setting the work to perspective measurements. The conditions of position exaggerating the apparent form of objects which are outside the usual scope of vision, are not worthy of consideration or discussion, inasmuch as such conditions are never present in the public school work, and only in extreme cases elsewhere. The practical side of this work appeals to us since a multitude of pupils will never enjoy the privileges of higher training. Those pupils who are to go into the walks of life requiring labor should receive not only the aesthetic training but a practical knowledge of the branches of drawing which shall be, perchance, a part of their daily labor. Thus the mechanical work receives much attention, and is followed as far as the conditions permit.

There has been but little work in the line of methods, as the teachers, as a body, were lacking in subject-matter. It was found necessary to meet this condition first. Though the institute work will always be a problem, it must be remembered that we are dealing with adult minds, therefore, our work should be somewhat different in character from that which might be given for the benefit of the pupils direct. It is reasonable to suppose that our work should be of a character which would encourage, inspire and indirectly to instruct; thus it has been so far as possible. Nevertheless, there are teachers who think they can take the institute work directly to their school-rooms and make it as a whole, a part of the daily program.

Making a fair comparison with other subjects and considering the time given to the drawing, in the various schools, there is every reason to be satisfied with the evidences of interest and progress made. There is much in evidence as a return for the time and money devoted to the subject of drawing. In certain districts the work has been somewhat hindered by selfish interests, but as the teachers learn that the State plan eliminates all unnecessary and meaningless work, they fall into the ways of the new work very kindly. From teachers at the institutes there have been asked more and better questions than ever before, showing a decided interest and a certain advancement in the work. At many institutes special sessions have been requested wherein teachers might discuss the various plans and methods of presenting the subject to their classes, or for work required in special grades. These sessions are held after the regular hours of the institute and frequently during the evening hours.

As our efforts are toward creating an interest which shall produce workers, it is fair to compare the drift of the work now being done and that of former years.

We hope for more freehand work from the teachers, as a part of the class work, as it is believed that the free use of the crayon as a means of imparting knowledge, especially in the primary grades, will tend to make pupils more intelligent.

Regarding the examinations in drawing, it is but fair to the drawing, to examine the papers in other subjects of candidates who fail to meet these very elementary questions. Having made this comparison it is found that the standing in history, civil government, geography, spelling and others is proportionately low, and further it was found that comparatively few failed in their examinations on drawing alone.

The questions have been and are correct both in value and matter, to meet the present conditions, and to bring the body of teachers to a working understanding of the subject.

Respectfully submitted,

BUFFALO, August 1, 1896.

GRATIA L. RICE.

REPORT OF FLORENCE B. HIMES, INSTRUCTOR IN DRAWING.

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction*:

Dear Sir.—A review of the work in drawing in the institutes throughout the State during the past school year, shows steady progress in this branch of study, as has been proved by the more general knowledge of terms and principles, by the greater ability to draw, by the judgment exercised in questioning concerning the various branches of the subject, and by the increased desire to know both subject-matter and methods for the presentation of the same to the pupils in our public schools. The results of the examinations also show improvement.

The coming year will, we trust, show a very great advancement in this subject, owing to the fact that the teachers and members of training classes throughout the State will be supplied with a definite outline of work in the form of a series of lessons covering those branches of the subject deemed most important for a foundation for further study and most practical at the present stage of the work.

The two State Departments being in entire harmony in their ideals, aims, and methods of work, as shown by the most recent publication of each department, it is believed that the work in drawing throughout the State, for teachers, for members of training classes, and for the pupils in our public schools, as well as the examination requirements of both departments, will form a complete and united whole, and will be a substantial basis for further application and use of the subject in the various studies in the school curricula, for it is agreed that drawing should be utilized as a language, that it is primarily an invaluable aid to expression in other subjects, and that it should be applied generally in school work wherever opportunity is afforded.

In meeting the teachers of the State, one strong purpose in all the work, in addition to the regular work in subject-matter and methods, has been to help them to acquire some little skill in the use of the pencil and blackboard crayon, so that they may feel free and happy in the use of drawing in the class-room, and for this reason considerable attention has been paid to pictorial drawing, involving the principles of perspective, and to blackboard sketching. Teachers have so repeatedly expressed a desire for the power of illustration, if in only one subject, as for instance, in elementary geography, feeling that the end would justify any amount of work, that I have laid special stress on this branch of the work. The whole question resolves itself into seeing correctly, and when this is accomplished it is comparatively easy to represent what is seen.

This work has been directed also toward making the teacher able to approve, criticise, or correct those illustrative drawings of the children, executed with that perfect freedom and abandon, which characterizes children's sketches when the thought of the character and life of the object is first, and modes of execution but a secondary matter, if considered at all. Pursuant to this idea many teachers have been encouraged to try the plan of letting each child have his own little sketch book in which he is to draw the interesting things which he sees, the test being that nothing shall be named, but that all shall be in truth, "picture writing." The results as shown in such sketch books have been truly marvelous. They afford also many suggestions for class-room work in drawing, and enable both teachers and pupils to get away from the perpetual round of geometric type solids, suggesting again and again that vital relation between technical instruction and the illustrative sketching which is the delight of unprejudiced and confident childhood.

Considerable attention has been paid also to mechanical drawing, involving the certain knowledge of geometric principles, and the proper use of tools. This work has been placed upon a practical and business-like basis, and is decidedly valuable in the public schools of our State.

The graded institutes will now advance the work considerably, I believe, inasmuch as they afford opportunities for discussing methods of presenting the subject in the different grades, and in any particular division of the institute the time may be devoted wholly and uninterruptedly to the consideration of the work of some particular grade. This plan can be more directly carried out now that the teachers are supplied with a definite amount of subject-matter (in a graded institute better than in any other). They are able to obtain more knowledge of methods which can be taken back to their schools and applied almost immediately in their classes.

The summer institutes under the direction of the State Department, during the past summer afforded the teachers of the State a long desired opportunity to be under instruction in the subject of drawing for some length of time, in order that they might perform the actual work of drawing. They also furnished opportunities for the discussion of methods for treating the difficult and much discussed parts of this subject. My experience at the summer institute at the Thousand Island Park was that the three weeks devoted to the work were entirely insufficient to supply the demand, and that the desire was for more work than could be given in this period. The interest never seemed to flag for an instant, and the teachers in attendance upon the classes in drawing, worked faithfully and zealously. Many expressions were heard

concerning the value of this work to individual teachers, and, speaking for the drawing alone, I believe the work done by the teachers during the past summer will be productive of much good, and that if the summer schools should be continued, we might soon have throughout the State a body of teachers able to draw and to teach drawing.

Respectfully submitted,

FLORENCE BROWNING HIMES.

REPORT OF ANNA K. EGGLESTON, INSTRUCTOR IN PRIMARY WORK.

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction*:

Dear Sir.—In compliance with your request, the following report of my work as primary instructor in institutes during the past year is submitted:

The plan of presenting three principal themes—a common-school subject, the children, and the teachers' vocation—has been followed in the forty-six institutes which I have attended. As twenty-five of these institutes were in districts where I had never worked, the topics of last year were given.

The new topics selected for institutes previously visited were "Number," "The children," and "Some of the Masters." Teachers were urged to devote as much time as possible during the year to the study of number; to know the elements of the subject; the basis upon which theories of teaching it rest, and to become familiar with the best works upon elementary arithmetic.

An attempt was made to find in what degree the work in geography, presented the previous year, had been made of practical value. The result of this effort was not at all satisfactory, as it was so difficult to get teachers to give evidence during an institute period, and the intermission was so brief that only a few could be interviewed.

Seemingly, teachers have derived more benefit from the period devoted to "Climate studies" than from any other which was given in geography. The collection of poems pertaining to the seasons, which you had printed for primary schools, were sought eagerly by teachers, and their expressions of pleasure at possessing the little pamphlet would have been gratifying to you.

The interest in child-study increases, and in the papers which pupils and teachers have written there is evidence that this theme does not end in theories expressed at the institute, but develops into activity. Not only have teachers responded to the request to

send papers written by the children, but they have recorded the experiences of their own childhood. Papers containing careful studies of individual children have been received, as well as many letters from teachers throughout the State asking for information or giving some interesting feature of child-study. The speaker upon this subject at institutes has never been able to listen to all that teachers wished to say about the children of their schools, because of limited time. A year ago there was much faith in a deeper sympathy and a greater knowledge that was to come to teachers through a close study of children; to-day that faith rests upon certainty.

With the period "Some of the Masters," it was purposed to introduce teachers to Rousseau's *Emile*, and to make them familiar with the life and sayings of Pestalozzi. The number of copies of *Emile* and De Guimp's *Pestalozzi: His Aim and Work*, purchased at institutes indicates that when the professional spirit is once awakened, teachers will seek the inspiration that comes from a familiarity with the literature pertaining to their vocation. Hitherto the low salaries paid to teachers prevented their buying books, and it seemed a cruel act to create a desire which could not be gratified. Now the Teachers' Library of the State of New York, prepared under your supervision, makes it possible to do much at institutes to promote the culture and refinement that comes from a literary taste.

Nothing bespeaks the growth of a higher appreciation of the importance of primary work more than does the fact that so many bright women are leaving positions in schools to give themselves one or two years of study and training, that they may be better prepared to teach in primary grades. Successful teachers who left elementary classes to teach in those more advanced, because so little skill was demanded for the teaching of young children, are, in some instances, returning to their former fields of labor. There are many signs full of hope for the future of the elementary schools of this State, but the deepest significance rests in the fact that teachers are making so many sacrifices to fit themselves for their work.

Very respectfully,

ANNA K. EGGLESTON.

BUFFALO.

4. LAW REGULATING ATTENDANCE AND CLOSING OF SCHOOLS

TITLE X OF CONSOLIDATED SCHOOL ACT

Section 1. It shall be the duty of the superintendent of public instruction to appoint a teachers' institute once in each year in each school commissioner district of the State, for the benefit and

instruction of the teachers in the public schools, and of such as intend to become teachers, with special reference to the presentation of subjects relating to the principles of education and methods of instruction in the various branches of study pursued in the schools. After consultation with the school commissioners, the said superintendent shall have power to determine the duration of each institute and to designate the time and place of holding the same. He shall also have power to employ suitable persons, at a reasonable compensation, to supervise and conduct the institutes, and, in his discretion, to provide for such additional instruction as he may deem advisable and for the best interests of the schools. He may also, in his discretion, appoint an institute for two or more commissioner districts. He shall establish such regulations for the government of institutes as he may deem best; and he may establish regulations in regard to certificates of qualification or recommendation which may be issued by school commissioners as will, in his judgment, furnish incentives and encouragement to teachers to attend the institutes. So far as consistent with other duties imposed upon him, the superintendent shall visit the institutes, or cause them to be visited by representatives of the department of public instruction, for the purpose of examining into the course and character of instruction given, and of rendering such assistance as he may find expedient.

§ 2. It shall be the duty of every school commissioner, subject always to the advice and direction of the superintendent of public instruction, and in such form and manner as may be deemed most effectual, to notify all teachers, trustees, boards of education and others known to him, who may desire to become teachers under his jurisdiction, of the time when and the place where the institute will be held. The school commissioner shall make all necessary arrangements for holding the institute when appointed; see that a suitable room is provided; attend to all necessary details connected therewith; assist the conductor in organization; keep a record of all teachers in attendance; and notify the trustees of the number of days attended by the teachers of the various districts, which shall be the basis of pay to such teacher for attendance as hereinafter provided. He shall also transmit to the superintendent of public instruction at the close of each institute, in such form, and within such time as the superintendent shall prescribe, a full report of the institute, including a list of all teachers in attendance, the number of days attended by each teacher, with such other statistical information as may be required. He shall present a full statement of all expenses incurred by him in carrying on the institute, with vouchers for all expenditures made, accompanying the same by an affidavit of the correctness of statements made and of accounts presented.

§ 3. The school commissioner shall have the right to hold an institute when appointed in any school building in any district under such commissioner's jurisdiction which receives public money from the state, without expense therefor to the state beyond a reasonable allowance to said district for lighting, heating and janitor service, provided always that due and proper care shall be maintained, and the school building left in the like condition as found as regards cleanliness and neatness.

§ 4. All schools in school districts and parts of school districts within any school commissioner district wherein an institute is held, not included within the boundaries of an incorporated city, or certain union free school districts hereinafter mentioned, shall be closed during the time such institute shall be in session. The closing of a school within the school commissioner district wherein an institute shall be held, at which a teacher has attended, shall not work a forfeiture of the contract under which such teacher was employed. In union free school districts having a population of more than five thousand, and employing a superintendent whose time is exclusively devoted to the supervision of the schools therein, the schools may be closed or not, at the option of the boards of education in such districts. The trustees of every school district are hereby directed to give the teacher or teachers employed by them, the whole of the time spent by them in attending at an institute or institutes held as hereinbefore stated, without deducting anything from the wages of such teacher or teachers for the time so spent. All teachers under a contract to teach in any school commissioner district shall attend such institute so held for that district, and shall receive wages for such attendance.

§ 5. In the apportionment of public school money, the schools thus closing in any school time shall be allowed the same average pupil attendance during such time, as was the average weekly aggregate during the week previous to such institute, and any school continuing its sessions, in violation of the above provision shall not be allowed any public money based upon the aggregate attendance for the period during which the institute was held. Trustees and boards of education in such school districts and parts of school districts shall report, in their annual reports to the school commissioners, the number of days and the dates thereof on which a teachers' institute was held in their districts during the school year, and whether schools under their charge were or were not closed during such days; and whenever the trustees' report shows a district school has been supported for the full time required by law, including the time spent by the teacher or teachers in their employ in attendance upon such institute, and that the trustees have given the teacher or teachers the time of

such absence, and have not deducted anything from his or their wages on account thereof, the superintendent of public instruction may include the district in his apportionment of the state school moneys, and direct that it be included by the school commissioner or commissioners in their apportionment of school moneys; provided, always, that such school district be in all other respects entitled to be included in such apportionment.

§ 6. Willful failure on the part of a teacher to attend a teachers' institute as required, shall be considered sufficient cause for the revocation of such teacher's license, and a willful failure on the part of trustees to close their schools during the holding of an institute as required, shall be considered sufficient cause for withholding the public moneys to which such districts would otherwise be entitled. Any person under contract to teach, for the term in which an institute is held, in a school in any commissioner district is required to attend an institute, if held for that district, even though at the time the school is not in session, and shall be entitled to receive wages for such attendance.

§ 7. The treasurer shall pay, on the warrant of the comptroller, to the order of any one or more of the school commissioners, such sum or sums of money as the superintendent of public instruction shall certify to be due to them for expenses in holding a teachers' institute; and, upon the like warrant and certificate, to pay to the order of any persons employed by the superintendent as additional instructors to conduct, instruct, teach or supervise any such teachers' institute.

§ 8. There shall be annually appropriated out of the free school fund the sum of thirty thousand dollars for the maintenance of teachers' institutes.

5. STATISTICAL TABLES

List of Teachers' Institutes — Attendance, Experience, Local Expenses — From September 2, 1895, to May 29, 1896.

COUNTY	District	Place	Conductor	Date	TEACHERS IN ATTENDANCE			AVERAGE ATTENDANCE			Aggregate days' attendance	AVERAGE NUMBER OF TERMS TAUGHT			Local expenses
					Men	Women	Total	Men	Women	Total		Men	Women	Total	
Ulster.....	1	Kingston.....	McLachlan.....	1895. Sept. 2	31	124	155	30	116	146	780	24	13	15	\$42 97
Queens.....	2	Freeport.....	Stout.....	Sept. 9	30	178	208	29	174	203	1,018	23	11	13	23 00
Oswego.....	2	Cleveland.....	Bugbee.....	Sept. 9	19	85	104	18	85	103	518	7	9	8	26 72
Onondaga.....	2	Onondaga Valley.	McLachlan.....	Sept. 9	28	124	152	27	123	150	751	9	7	7	27 17
Onondaga.....	3	Manlius.....	Sanford.....	Sept. 9	32	111	143	31	108	139	698	8	8	8	36 05
Rensselaer.....	1	Hoosick Falls.....	Hendrick.....	Sept. 9	21	114	135	18	111	129	645	12	11	11	25 00
Chautauqua.....	3	Falconer.....	Stout.....	Sept. 16	39	91	130	36	91	127	636	7	9	8	33 68
Niagara.....	2	Niagara Falls.....	Hendrick.....	Sept. 16	36	146	182	35	145	180	903	9	9	9	23 65
Onondaga.....	1	Baldwinsville.....	McLachlan.....	Sept. 16	21	118	139	21	117	138	688	12	7	8	30 04
Putnam.....	1	Cold Spring.....	Sanford.....	Sept. 16	15	58	73	14	58	72	360	21	15	16	13 90
Lewis.....	1	Port Leyden.....	Bugbee.....	Sept. 16	14	116	130	14	115	129	647	7	6	6	32 31
Monroe.....	1	Pittsford.....	Hendrick.....	Sept. 30	27	140	167	26	136	162	813	4	9	8	46 70
Columbia.....	1	Germanatown.....	Stout.....	Sept. 30	15	69	84	15	67	82	409	20	11	12	47 11
Allegany.....	1	Angelica.....	McLachlan.....	Sept. 30	36	148	184	35	144	179	875	3	6	6	43 30
Greene.....	1-2	Cairo.....	Sanford.....	Sept. 30	50	117	176	58	116	174	874	15	9	11	43 00
Schenectady.....	2	Schenectady.....	Bugbee.....	Sept. 30	22	50	72	21	50	71	356	8	8	8	43 02
Tompkins.....	2	Groton.....	Shaver.....	Sept. 30	20	81	101	19	81	100	503	6	7	7	35 59
Suffolk.....	2	Patchogue.....	McLachlan.....	Oct. 7	29	157	186	29	155	184	920	16	10	11	69 67
Livingston.....	2	Dundee.....	Stout.....	Oct. 7	24	97	121	23	95	118	594	8	7	9	21 22
Rensselaer.....	2	Berlin.....	Sanford.....	Oct. 7	30	101	131	29	100	129	646	17	12	13	37 50
Sullivan.....	2	Liberty.....	Hendrick.....	Oct. 7	39	74	113	38	73	111	557	8	7	7	43 40
Wayne.....	1	Sodus.....	Bugbee.....	Oct. 7	45	136	181	44	133	177	885	11	8	9	52 50
Wayne.....	1	Palmyra.....	Bardwell.....	Oct. 7	28	127	155	27	126	153	766	7	8	8	47 64

DEPARTMENT OF PUBLIC INSTRUCTION

STATISTICAL TABLES—(Continued).

List of Teachers' Institutes—Attendance, Experience, Local Expenses—From Sept. 2, 1895, to May 29, 1896.

COUNTY	District	Place	Conductor	Date	TEACHERS IN ATTENDANCE			AVERAGE ATTENDANCE			Aggregate attendance days	AVERAGE NUMBER OF TERMS TAUGHT			Local expenses
					Men	Women	Total	Men	Women	Total		Men	Women	Total	
Allegany	2	Belmont	McLachlan	1895 Oct. 14	39	171	210	38	164	202	1,011	7	8	8	\$25 32
Cayuga	1	Port Byron	Bugbee	Oct. 14	23	117	140	22	116	138	692	11	7	8	42 34
Chenango	2	Greene	Shaver	Oct. 14	30	126	156	30	125	155	775	10	7	7	48 42
Delaware	1	Walton	Stout	Oct. 14	49	191	240	49	190	239	1,197	7	8	8	48 62
Monroe	2	Scottsville	Hendrick	Oct. 14	33	113	146	33	112	145	727	11	9	9	56 83
Oneida	2	Clinton	Sanford	Oct. 14	37	108	145	37	107	144	721	6	7	7	34 79
Oneida	3	Camden	Sanford	Oct. 21	21	78	99	21	78	99	495	9	8	8	38 18
Schoharie	1	Schoharie	Lockwood	Oct. 21	47	77	124	46	74	120	599	11	6	8	25 50
Cattaraugus	1	Franklinville	Hendrick	Oct. 21	44	150	194	43	148	191	958	7	8	8	53 80
Cattaraugus	2	Salamanca	Bugbee	Oct. 21	57	179	236	57	179	236	1,180	7	7	7	67 65
Chautauqua	1	Mayville	McLachlan	Oct. 21	30	91	121	29	89	118	593	6	6	6	24 54
Erie	2	Angola	Shaver	Oct. 21	36	110	146	35	108	141	703	8	8	8	32 14
Cayuga	2	Union Springs	Stout	Oct. 21	37	118	155	36	118	154	770	7	8	8	41 89
Chemung .....	...	Horseheads	Sanford	Oct. 28	22	150	172	22	149	171	855	10	6	6	60 10
Sullivan	1	Monticello	Bardwell	Oct. 28	32	82	114	32	82	114	569	11	8	9	34 87
Wyoming	1	Perry	McLachlan	Oct. 28	31	113	144	30	113	143	715	5	8	7	24 00
Genesee .....	...	Batavia	Stout	Oct. 28	54	158	212	54	157	211	1,053	10	8	9	47 50
Tompkins	1	Trumansburg	Hendrick	Oct. 28	15	100	115	15	97	112	563	5	5	5	44 05
Dutchess	2	Rhinebeck	Bugbee	Oct. 28	26	68	94	26	67	93	467	16	15	15	31 80
Washington	2	Whitehall	Stout	Nov. 11	24	174	198	24	170	194	973	9	10	10	40 50
Clinton	1	Plattsburg	McLachlan	Nov. 11	18	95	113	18	93	111	556	7	10	9	33 25
Saratoga	1	Mechanicville	Lockwood	Nov. 11	20	115	135	20	115	135	675	11	9	10	46 72
Washington	1	Salem	Bugbee	Nov. 11	16	133	149	16	132	148	741	10	10	10	51 52
Erie	1	Lancaster	Hendrick	Nov. 11	36	104	140	36	104	140	700	7	8	8	19 18
Schoharie	2	Richmondville	Sanford	Nov. 11	59	83	142	59	82	141	702	9	7	7	25 00
Lewis	2	Lowville	McLachlan	Nov. 18	20	137	157	20	137	157	784	8	8	8	31 45
Ulster	2	New Paltz	Hendrick	Nov. 18	30	86	116	29	85	114	573	19	10	12	44 05
Ulster	3	West Shokan	Stout	Nov. 18	28	103	131	28	102	130	649	16	8	9	29 94
Delaware	2	Delhi	Bugbee	Nov. 18	69	135	204	68	135	203	1,016	8	8	8	49 43

Broome	2	Whitney's Point.....	McLachlan.....	197	189	32	106	138	692	6	9	8	21 05
Steuben.....	3	Canisteo.....	Stout.....	187	174	37	135	172	862	7	6	6	36 50
Chautauque.....	2	Fredonia.....	Hendrick.....	121	167	46	121	167	834	7	8	7	28 15
Herkimer.....	2	Ilion	Sanford and Bugbee..	145	174	28	141	169	848	8	8	8	53 88
Madison	1	Hamilton	Stout.....	184	175	41	138	174	869	7	7	7	68 71
Madison	2	Cazenovia	McLachlan	147	177	29	146	175	876	11	9	9	44 12
Orleans .....	...	Albion.....	Sanford	137	201	64	137	201	1,005	8	9	9	38 75
Wyoming	2	Castile.....	Hendrick.....	79	103	24	78	102	513	8	9	7	17 92
Steuben	2	Addison	Bugbee.....	120	156	35	120	155	775	10	8	8	40 87
Saratoga.....	2	Saratoga Springs.....	Bugbee.....	167	169	34	161	195	973	11	11	11	44 78
Otsego.....	1-2	Cooperstown	Hendrick	269	396	127	269	396	1,985	6	7	7	56 22
Montgomery.....	...	Canajoharie.....	Stout.....	126	181	53	124	177	886	15	10	12	47 34
Yates.....	...	Penn Yan	McLachlan	118	157	39	117	156	778	7	8	8	51 09
Schuyler.....	...	Watkins.....	Sanford.....	99	136	36	97	133	665	9	7	7	42 33
1896													
Steuben	1	Bath.....	Stout.....	149	210	60	147	207	1,033	11	9	9	67 48
Livingston	1	Aron.....	McLachlan	95	117	22	93	115	577	7	9	9	69 80
Niagara	1	Middleport	Bugbee.....	71	93	22	65	87	433	6	7	7	29 68
Seneca .....	...	Ovid	Bugbee.....	92	120	28	91	119	595	9	9	9	34 75
Orange	2	Middletown	Hendrick.....	107	141	32	105	137	689	15	12	13	60 30
Oneida.....	1	Whitesboro.....	Sanford.....	66	80	14	66	80	400	21	8	11	25 50
Herkimer	1	Little Falls.....	Bugbee.....	99	125	26	98	124	621	7	7	7	33 06
Rockland .....	...	Rockland Lake.....	Stout.....	72	102	30	71	101	506	20	14	16	25 93
Oswego	1	Fulton	McLachlan	140	170	29	138	167	838	8	9	9	44 52
Warren	1-2	Glens Falls.....	Bugbee.....	146	169	22	143	165	824	12	13	13	22 35
Ontario	2	Canandaigua.....	Stout.....	130	155	24	124	148	738	9	10	10	15 76
Tioga.....	...	Oswego.....	Sanford.....	229	256	26	226	252	1,263	5	8	8	45 59
Richmond.....	...	Tompkinsville.....	McLachlan	141	173	31	141	172	859	29	16	18	25 00
Ontario	1	Geneva	Hendrick.....	141	157	16	140	166	778	9	9	9	24 10
Jefferson.....	1	Adams.....	Sanford.....	121	155	33	119	152	760	8	9	9	39 01
Westchester....	1-3	White Plains.....	Stout.....	246	290	44	240	284	1,416	24	15	16	38 70
Suffolk.....	1	East Hampton.....	McLachlan	82	113	30	81	111	558	16	12	13	24 69
Erie	3	Springville.....	Hendrick.....	91	116	25	87	112	559	8	6	6	41 50
Fulton.....	...	Johnstown.....	Hendrick.....	68	118	50	67	117	584	10	8	9	29 00
Franklin.....	1-2	Malone	McLachlan	229	272	43	229	272	1,357	5	9	8	47 36
Oneida.....	4	Boonville	Sanford.....	109	153	43	109	152	762	6	9	8	23 63
Jefferson.....	2	Carthage.....	Bugbee.....	136	164	28	136	164	818	8	8	8	33 52
St. Lawrence....	1	Gouverneur.....	Stout.....	155	187	22	154	186	932	6	8	8	51 41
Oswego.....	3	Pulaski.....	McLachlan	148	189	41	147	188	942	4	7	6	55 76
Broome	1	Windsor.....	Bugbee.....	108	143	34	108	142	710	6	8	8	26 52
Queens.....	1	Flushing	Stout.....	164	189	21	154	175	875	23	12	14	55 50
Cortland	1-2	Homer.....	Sanford and Hendrick.	144	178	33	142	175	874	10	9	9	52 90
Dutchess	1	Matteawan	Hendrick.....	145	180	34	144	178	892	16	12	13	43 85
Albany	3	Altamont	Sanford.....	50	64	14	49	63	312	19	10	12	46 31
St. Lawrence....	2	Canton	McLachlan	171	216	44	169	213	1,066	6	7	7	41 63
Clinton	2	Rouses Point	Bugbee.....	93	117	22	91	113	564	8	9	9	45 25
Orange	1	Walden.....	Stout.....	98	118	20	98	118	587	23	13	15	13 28
St. Lawrence....	3	Norwood.....	McLachlan	159	194	34	159	193	968	6	8	8	44 00

STATISTICAL TABLES — (Concluded).
List of Teachers' Institutes — Attendance, Experience, Local Expenses — From Sept. 2, 1895, to May 25, 1896.

COUNTY	District	Place	Conductor	Date	TEACHERS IN ATTENDANCE			AVERAGE ATTENDANCE			Aggregate attendance	AVERAGE NUMBER OF TERMS TAUGHT			Local expenses
					Men	Women	Total	Men	Women	Total		Men	Women	Total	
Albany	1	Ravena	Sanford	1896 May 18	16	33	49	16	33	49	243	15	10	12	\$41 35
Essex	1	Elizabethtown	Hendrick	May 18	23	84	107	23	84	107	534	12	11	11	25 88
Essex	2	Westport	Bugbee	May 18	25	110	135	25	110	135	673	10	9	9	21 32
Jefferson	3	Clayton	Stout	May 18	30	131	161	30	131	161	805	8	7	7	23 74
Albany	2	Preston Hollow	Sanford	May 25	18	43	61	18	43	61	305	4	6	6	36 03
Columbia	2	Chatham	Hendrick	May 25	26	91	117	25	90	115	577	18	10	11	21 25
Chenango	1	Norwich	Stout	May 25	33	133	166	32	132	164	819	8	7	7	34 08
Totals					3,474	12,748	16,222	3,411	12,584	15,995	80,031				\$4,072 53

Total number of institutes held	106
Total number of counties	57
Total cost	\$35,071 36

EXHIBIT No. 16

TEACHERS' TRAINING CLASSES

1. REPORT OF SUPERVISOR OF TRAINING CLASSES
 2. REPORTS OF INSPECTORS
 3. REGULATIONS AND COURSE OF STUDY FOR THE TRAINING CLASSES IN THE ACADEMIES AND UNION SCHOOLS OF THE STATE
 4. STATISTICAL TABLES
 - a. LIST OF INSTITUTIONS WHICH ORGANIZED TEACHERS' TRAINING CLASSES FOR FIRST AND SECOND TERMS, 1895-96, WITH AMOUNT OF MONEY APPORTIONED TO EACH INSTITUTION
 - b. STATISTICS SHOWING CONDITION OF TEACHERS' TRAINING CLASSES FOR FIRST TERM OF SCHOOL YEAR 1895-6
 - c. STATISTICS SHOWING CONDITION OF TEACHERS' TRAINING CLASSES FOR SECOND TERM OF SCHOOL YEAR 1895-6
 - d. STATISTICS SHOWING BY CLASSES THE MAXIMUM NUMBER OF STUDENTS REPORTED EITHER TERM, THE NUMBER OF CANDIDATES FOR CERTIFICATES, AND THE NUMBER OF CERTIFICATES GRANTED
 - e. TEACHERS' TRAINING CLASSES — GENERAL SUMMARY FROM 1889-96
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TEACHERS' TRAINING CLASSES

AUGUSTUS S. DOWNING, A. M., *Supervisor of Training Classes*

Inspectors

S. WHITFORD MAXSON.....Adams Centre.
FRANK H. WOOD, A. M.....Chatham.
ELLIS D. ELWOOD.....Ilion.

1. REPORT OF SUPERVISOR OF TEACHERS' TRAINING CLASSES

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction:*

Dear Sir.— The year just closed may be considered as the first in a new era of training class work. More has been accomplished during this year than even the most sanguine expected. With a higher standard of scholarship for entrance to the classes came a greater maturity on the part of members, and hence a fuller appreciation of the aims and object of the training class; better scholarship at entrance has meant less time for subject-matter and more time for the professional work. A greater amount of time and much more careful attention has been given to the observation of good teaching and to practice teaching by the members of the classes.

In requiring that instructors of these classes be approved by the State Superintendent and that in order to receive such approval they must be trained and experienced teachers has had much to do with the great advance made. The work done by the instructors of the classes has so improved over that of former years that this advance is marked by contrast rather than by comparison.

There was some opposition to the requirement that a separate room should be set apart and equipped for the training class. At the end of this year no one questions the wisdom of the requirement. Two or three schools to which concession of a year's time to meet the new condition was made are already prepared to fully meet this requirement at the beginning of the next year.

More careful inspection has been given than formerly, and it has been the constant aim of the inspectors to know the exact status of each class and to report the same to the Department.

As a result of the higher requirements fewer classes were organized than in recent years, but for the money expended the results must be highly gratifying to you.

The following table will show by comparison the attendance and cost of these classes since 1889-90:

TERM	Number of classes organized	NUMBER OF PUPILS REGISTERED			Number who had already taught	Number of scholars allowed	Amount paid schools for instruction of classes
		Men	Women	Total			
1889-90, first term.....	49	162	596	758	256	680	\$7,932
1889-90, second term.....	59	225	844	1,069	327	928	19,863
1890-91, first term.....	61	221	758	979	304	873	14,750
1890-91, second term.....	56	236	726	962	291	808	13,037
1891-92, first term.....	82	262	1,012	1,274	464	1,053	17,612
1891-92, second term.....	77	292	964	1,256	390	1,070	16,774
1892-93, first term.....	95	304	1,120	1,424	456	1,153	19,530
1892-93, second term.....	100	339	1,179	1,518	518	1,370	21,740
1893-94, first term.....	109	396	1,276	1,672	558	1,317	21,998
1893-94, second term.....	118	464	1,517	1,981	702	1,709	26,842
1894-95, first term.....	127	531	1,621	2,152	681	1,655	27,189
1894-95, second term.....	140	642	1,840	2,482	799	2,212	36,063
1895-96, first term.....	74	190	875	1,065	212	881	15,846
1895-96, second term.....	72	203	886	1,089	237	1,050	19,723

The following table shows the result of the expenditure:

Statistics showing by classes the maximum number of students reported either term, the number of candidates for certificates, and the number of certificates granted.

County	NAME OF INSTITUTION	MAXIMUM NUMBER OF STUDENTS REPORTED EITHER TERM			Number of candidates for certificates	Number of certificates granted.
		Men	Women	Total		
Albany.....	.....	2	23	25	23	9
Allegany ..	.....	6	12	18	11	11
.....	.....	3	5	8	10	6
.....	.....	3	8	11	11	9
.....	.....	3	17	20	16	9
Broome.....	.....	6	7	13	8	7
.....	.....	9	2	11	8	3
Cattaraugus ..	.....	6	6	12	8	3
Chautauque ..	Chamberlain Institute.....	7	8	15	13	11
.....	Forestville Free Academy.....	4	8	12	13	11
.....	.....	1	24	25	17	11
Chemung.....	.....	.....	25	25	20	13
Chenango ..	Norwich Union School.....	3	9	12	7	6
Delaware ..	Delaware Literary Institute.....	1	14	15	8	3
Dutchess ..	Poughkeepsie High School.....	1	18	19	15	12
Essex ..	Parker Union School.....	2	8	10	9	1
Franklin ..	Westport Union School.....	2	10	12	7	5
Genesee ..	.....	3	7	10	9	9
Herkimer.....	.....	1	13	14	7	3
Jefferson ..	.....	4	9	13	13	12
.....	.....	3	7	10	9	3
.....	.....	5	8	13	10	8
Lewis.....	.....	3	13	16	18	6
.....	.....	4	10	14	7	4
Livingston.....	.....	1	10	11	9	7
Madison.....	.....	4	12	16	15	7
.....	.....	5	17	22	18	13

Statistics showing by classes the maximum number of students reported either term, the number of candidates for certificates, and the number of certificates granted.

County	NAME OF INSTITUTION	MAXIMUM NUMBER OF STUDENTS REPORTED EITHER TERM.			Number of candidates for certificates	Number of certificates granted
		Men	Women	Total		
Monroe.....	12	12	24	10	9
.....	12	12	24	11	10
.....	12	12	24	24	21
.....	12	12	24	10	5
.....	11	11	22	11	11
.....	12	12	24	12	5
.....	10	10	20	12	11
.....	9	9	18	11	4
.....	14	14	28	18	17
.....	18	18	36	23	20
.....	16	16	32	18	10
.....	18	18	36	21	16
.....	12	12	24	4	2
.....	12	12	24	9	8
.....	12	12	24	21	14
.....	12	12	24	12	9
.....	14	14	28	15	7
.....	12	12	24	8	4
.....	12	12	24	16	15
.....	10	10	20	10	10
.....	9	9	18	8	4
.....	12	12	24	10	5
.....	11	11	22	10	5
.....	14	14	28	9	2
.....	25	25	50	24	17
.....	14	14	28	10	8
.....	11	11	22	8	3
.....	9	9	18	9	9

Steuben.....	Canisteo Free Academy.....	6	11	17	10	6
	Horrell Free Academy.....	1	18	19	10	4
	North Cohocton Union School.....	3	9	12	7	6
Sullivan.....	Monticello Union School.....	5	7	12	10	4
Tioga.....	Owego Free Academy.....	.....	15	15	11	11
	Waverly High School.....	2	10	12	9	7
Tompkins.....	Itabaca High School.....	.....	17	17	13	12
	Trumansburg Union School.....	5	14	19	15	14
Ulster.....	Ellenville Union School.....	4	10	14	11	5
	Kingston Free Academy.....	.....	11	11	11	5
Warren.....	Glens Falls Union School.....	.....	17	17	9	5
Washington.....	Sandy Hill Union School.....	3	14	17	11	9
	Whitehall Union School.....	5	11	16	10	.....
Wayne.....	Clyde High School.....	.....	16	16	13	7
	Palmyra Classical Union.....	3	15	18	16	11
Wyoming.....	Arcade Union School.....	1	17	18	14	5
	Pike Seminary.....	4	6	10	.....	.....
	Warsaw Union School.....	4	13	17	16	11
Yates.....	Dundee Union School.....	3	7	10	7	3
Totals.....	.....	217	934	1,151	861	572

* Candidates for a certificate of this kind must have been in attendance upon a training class for at least one year.

From this table we note that 1,151 persons were instructed for part of the year; that 861 were instructed the entire year; that 572 of these 861 received training class certificates.

Last year 2,482 persons were instructed a part of the year, at least 2,000 were instructed the entire year, but only 348 training class certificates were earned, this too with an expenditure of \$63,252, or at a cost to the State of \$181.76 for each certificate.

This year, with higher requirements, hence fewer classes and fewer students, with more difficult examinations, hence a more valuable certificate, there were secured 572 professional certificates. These certificates were granted to 66 2-3 per cent. of those eligible to receive them, with an expenditure of \$35,569, or at a cost to the State of \$62.18 for each certificate. These figures demonstrate more clearly than can be done by any other means that the object for which these classes were established is being attained.

By correspondence with those who have obtained these certificates I hope to be able to report to you how many of them went at once into the active work of teaching.

Under the provisions of chapter 1031 of the Laws of 1895, after January 1st, of next year, the employment of qualified teachers in cities will be materially safeguarded. The Council of City Superintendents through their legislative committee met in conference at this Department and with your approval drafted the regulations herewith submitted (see p. 834) to govern the training schools. A number of cities and villages have during the year conducted training classes under this act, but these regulations will go into effect at the beginning of the next year for which a separate report will be prepared.

The arrangement which has been made by you to recognize the pedagogical work done in the colleges and universities of the State appears to me the crowning act in this work of professional training.

Very respectfully,

AUGUSTUS S. DOWNING.

August 1, 1896.

2. REPORTS OF INSPECTORS OF TEACHERS' TRAINING CLASSES

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction:*

In accordance with your request, I submit herewith my report as training class inspector for the year ending July 31, 1896:

The raising of the standard for admission to the classes, the additional time required for the work and the changes in the course of study so completely reorganizes training class instruction that it is perhaps impossible to fairly compare the work of this year with that of previous years.

However, it is believed that all familiar with this particular division of educational work will agree that the results for the year have been far more satisfactory than those of any previous year and have more than met the expectations of the Department and all others interested.

A visit to every training class in the State has convinced me that the advanced position taken by the Department receives the cordial approval of all in any way connected with the classes.

It has been a source of great satisfaction to see with what a loyal spirit these changes have been universally accepted and how cheerfully and earnestly superintendents, principals, teachers and members of the several classes have striven to adjust themselves to the new conditions. Undoubtedly as they become more familiar with the new order of affairs still better results may be expected.

One of the most important functions of the training class is to train the student to critically observe the work of good teachers and to learn to adapt the methods given in the training class to the varying conditions of the ordinary school-room.

This observation and actual practice must be under the immediate supervision of a competent instructor if the best results are accomplished. This is especially the case in the earlier part of the year when the students are beginning this work, therefore no school is doing full justice to its class when the training class teacher has little or no time, outside of the three recitation periods, to devote to the class. The ideal condition would be that her entire time should be given to the training class work.

Under the present conditions of payment by the State for the instruction given, the Department would not, perhaps, be justified in asking this of those schools having the small classes.

The smaller classes of 10 members under the method now in operation, may receive a maximum of \$380, which sum is likely to be reduced by sickness or other unavoidable causes.

For this sum they are asked to employ a competent and experienced teacher, to provide, furnish and warm a suitable room and arrange for opportunities for observation and practice work in the other departments of the school. While it is not admitted that the income from the State should be the only or even the principal reason for organizing a class, yet, boards of education are quite likely to give full consideration to the financial side of any question that may be under discussion. It seems unfair to ask them to employ the same grade of teachers, to provide the same equipment and to give the same time to the work for about two-fifths the compensation received by the larger classes, especially as the records will show that many of the smaller classes have sent out more graduates than some of the larger ones.

S. W. MAXSON.

ADAMS CENTRE, *September 10, 1896.*

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction*:

Dear Sir.— In accordance with your request I herewith submit my report of inspection for the past school year:

The new regulations and course of study that went into effect one year ago marks an epoch in training class work. The higher standard of admission has naturally resulted in a more mature and efficient membership. As a consequence there has been a marked improvement both in the grade and quality of the work. This judgment is corroborated by the experience of those who have long been engaged in this department of school work, and is further confirmed by the gratifying results of the final examinations.

Other factors have also contributed toward this result. No one will question the wisdom of requiring that the instructors of the classes shall have had either high scholastic or special professional training — coupled, in either case, with a minimum experience as teachers in the public schools of the State, and that they shall be subject to the approval of the State Superintendent; and no one will question the fact that on account of this requirement there has been increased efficiency in all lines of training class work. The new course of study, enlarged and enriched with added professional subjects, together with an extra period of recitation, has also been fruitful of good results. It has not only afforded opportunity for more training of a practical nature, a broader culture and a more stable foundation, but it has also resulted in a better conception of the opportunities, duties, and responsibilities of the teacher, and has served to bring the members into more intimate touch and sympathy with their work. I am of the opinion, however, that no pedagogical course is complete unless it includes the study of psychology, not as an abstract science but in its relations and applications to teaching — a hygienic rather than a “physiological psychology.”

Another result of the new regulations and requirements is especially gratifying. A student can no longer enter a training class simply to seek immunity from the payment of tuition or for the purpose of securing a second or third grade certificate. Under the present conditions it is impracticable for any one to take the work except for the purpose of securing professional training.

Since the first of the year I have found a marked improvement in the observation and practice work. Interest in it has increased. It has been made more practical and has been conducted more systematically.

In my inspections, I have made it a practice, so far as possible, to visit the lower grades of the schools to see what opportunities were afforded for the observation and practice work. I regret to state that in a number of cases the opportunities thus afforded were, in my judgment, of questionable advantage.

There has been a tendency on the part of many members of the different classes to undertake too much additional work. This condition has received close attention and a decided improvement was noticeable during the latter part of the year. The January examination was helpful in this direction as it was the means of directing attention to the fact that the average student must give the training class work his undivided attention for the full time to satisfactorily complete it.

It is to be regretted that frequently, yes commonly, the instructors were overworked. In many cases every period of the day, outside of the regulation time devoted to the training class, was occupied with other class work. In some cases the principal of the school was instructor of the class and conducted five other recitations daily. Under such conditions, the work suffers from inadequate preparation on the part of the instructor, failure to properly supervise the observation and practice work, and lack of opportunity to meet individual needs.

I believe this and other adverse conditions are largely occasioned by the method of compensating the schools for the instruction given "at the rate of one dollar for each week's instruction of each member." In many cases the return is so small that the school is forced to require the teacher to devote the greater portion of his time to other work. The present system of payment seems inequitable for while all schools must meet the same requirements as to instructors, instruction, time, etc., one school may receive three or four times what another school receives for doing the same work in the same prescribed way. It would seem that inasmuch as all other conditions are so uniform, the compensation should be made more uniform. It is my firm belief that a change in this direction would result in great good to our training classes.

Very respectfully,

FRANK H. WOOD.

CHATHAM, August 1, 1896.

3. REGULATIONS FOR TEACHERS' TRAINING CLASSES

STATE OF NEW YORK
DEPARTMENT OF PUBLIC INSTRUCTION
SUPERINTENDENT'S OFFICE
ALBANY, N. Y., *March 16, 1896.*

The following instructions and regulations for the organization and government of Teachers' Training Classes in the Union Schools and Academies are hereby prescribed.

CHARLES R. SKINNER,
State Superintendent.

TEACHERS' TRAINING CLASSES

The following regulations governing teachers' training classes have been prescribed in accordance with chapter 556 of the Laws of 1894, providing for the professional instruction of common school teachers in academies and union schools of the State.

Attention is called to the regulations adopted, to the course of study arranged, and to the provisions of the law relating to training classes.

I. Appointments

1. To receive due consideration, applications for appointments to instruct classes for the ensuing year, should be forwarded to the Department of Public Instruction by the first of May.

The consideration of appointments of Teachers' Training Classes for the school year beginning August 1, 1896, will be based upon the following conditions:

No school will receive an appointment unless it can fulfill the following requirements, viz.:

- (a.) To furnish as instructor or instructors of the class for not less (each day) than three recitation hours of 45 minutes each, a duly qualified teacher who is either (1) a college graduate with not less than three years' experience in teaching in the public schools of the State; (2) a graduate of a Normal School of this State from a higher course than the Elementary Course, so called, of at least two years' experience in teaching in the public schools of the State; or (3) one holding a State Certificate granted in this State upon examination subsequent to 1875. Such instructor or instructors must be approved by the State Superintendent of Public Instruction, the same as teachers employed in the several Normal Schools of the State.
- (b.) To furnish a suitable room or apartment separate from all other departments of the school in which the Training Class members shall be seated and no others, unless it may be the members of the graduating class of the current school year.
- (c.) To furnish opportunity for the class or some members thereof each day to observe methods of teaching in the several grades of common school work, and, when practicable, to actually have an opportunity to teach in such grades under proper criticism and direction.

- (d.) To conduct the recitations in the several subjects belonging to the Training Class work separately and distinct from all other recitations in such subjects.
- (e.) To maintain a legal class for at least 36 weeks in the year.
- (f.) To observe implicitly the conditions of admission to membership in the class.

2. In making assignments to institutions in the same county, reference will be had to the following considerations:

- (a.) The proper distribution of the classes among the school commissioner districts of the State;
- (b.) The location of the class to accommodate the greatest number of suitable candidates;
- (c.) Such equipment of the institution as will give assurance of doing substantial work, both in the theory and practice of teaching.

3. To meet the progressive demands of the teaching service, institutions fulfilling the requirements will receive an appointment to instruct a class for the school year.

4. The funds paid by the State for this instruction go into the treasury of the institution, and not to any individual. Trustees who pay a fixed salary to their principal can not allow teachers to share in these funds as an extra compensation.

5. A blank form of application will be furnished to institutions requesting the same.

II. Qualifications for Admission

1. Candidates must be at least 17 years of age at the time of entrance.

*2. They must subscribe, in good faith, to the following declaration: "We, the subscribers, hereby declare that our object in asking admission to the training class is to prepare ourselves for teaching; and that it is our purpose to engage in teaching in the public schools in the State of New York, at the completion of such preparation. We pledge ourselves to remain in the class during the year, unless prevented by illness or else excused by the Superintendent of Public Instruction."

The principal and school commissioner must be satisfied that the candidates have the moral character, talents, and aptness necessary to success in teaching.

3. Before admission they must hold as a minimum qualification either an unexpired third grade teacher's certificate and have at-

*Candidates should have their attention specially called to this obligation.

tained a standing of 60 per cent. in Civil Government, under the uniform examinations, or must hold under the Regents a Preliminary Certificate and 14 academic counts, four of which shall be in *English, two in American History, two in Civil Government, two in Physiology and the other four optional.

4. Candidates entering an examination, in order to qualify for entrance to any training class, shall present to the examiner a certificate from some reputable teacher, that in such teacher's judgment the candidate is capable of passing the examination and worthy to enter a training class. Such certificate shall be forwarded to the State Superintendent's office with the answer papers of the candidate.

III. Organization

1. The school year is divided into two terms of not less than 18 nor more than 20 weeks each.

2. The class must consist of not less than 10 nor more than 25 members.

3. The compensation allowed institutions for the instruction will be at the rate of \$1 for each week's instruction of each member.

4. To secure the most promising candidates, the following information should be fully announced prior to the organization of the class:

- (a.) the date on which the class is to be organized;
- (b.) the conditions of admission;
- (c.) the character and advantages of a professional course of study;
- (d.) the importance of this work in securing teachers' certificates.

5. Principals should consult the school commissioner with a view to securing from the schools under his visitation, as members of the class, those persons who intend to teach.

6. *Three periods of 45 minutes each, every school day*, must be occupied with instruction on the topics laid down in the course of study. Outside of the time given for this separate instruction, only such members of the class as have time and ability may be allowed to pursue other subjects, for which, however, no tuition may be charged, but no person not an accepted member of the class shall recite with the class.

7. Free tuition includes all subjects embraced in the uniform and State examinations.

*The only subjects accepted under English are as follows: Advanced English, English Composition, Rhetoric, English Literature and American Literature.

8. Two blank forms for notice of organization and two organization registers will be furnished to each institution. These blanks must be properly filled and one of each forwarded to the Department at the end of the third week after the organization of the class. The others must be retained by the principal for inspection by the proper school officers.

IV. Rulings and Requirements

1. No institution can be allowed more than \$450 for any one term's instruction.

2. No allowance can be made for any pupil not shown by reports to have been eligible to enter the class.

3. No allowance can be made in the case of any pupil for first term for less than 16 or more than 20 consecutive weeks.

4. In report for second term, all pupils who were members of class for first term for less than 16 weeks, and who remain in second term sufficient time to make 18 or more weeks consecutively will be allowed for such attendance, provided the total does not exceed 36 weeks.

5. In case pupils who attend first term not less than sixteen and not more than twenty weeks, and who continue in second term a less period than eighteen weeks, allowance will be made for weeks attended in second term, provided the weeks of attendance in both terms have been consecutive.

6. No person shall be admitted as a member of the class after its organization, except by permission first granted by the State Superintendent, and no such permission will be granted to enter the class later than the second Monday following the date of its organization.

7. Payment for instruction will be refused in all cases where members of classes fail to enter the examinations provided, unless such failures are satisfactorily explained in the principal's report.

No allowance will be made for any pupil who leaves the class before the expiration of the term, except by permission of the State Superintendent, and no such permission will be granted during the year, simply in order that the candidate may teach.

8. When the class is organized, the qualification for admission of each candidate shall be entered in the place designated for such entry in the "Teachers' Training Class Daily Register," and the credentials thereof filed for inspection.

9. A "Teachers' Training Class Daily Register" will be furnished for each class and the daily attendance of each member upon each recitation recorded therein. This "Register" must be forwarded to the Department at the close of each term with the report for that term.

10. The first term for the ensuing year shall begin not later than September 14, and the second term not later than February 1, 1897.

11. Training Class certificates are granted only upon the completion of a year's work, as prescribed in the course of study. After January, 1897, such year will be held to begin with the school year.

12. No person holding a Training Class certificate, or entitled to hold such certificate, is eligible to membership in a Training Class.

V. Course of Study

This course is designed to meet the requirements of the uniform system for teachers' certificates, and to satisfy the conditions of admission to advanced classes in the Normal schools of the State.

FIRST TERM

FIRST RECITATION

Arithmetic

(One recitation daily through the term.)

Subject matter and methods.

Review of the following topics with special reference to teaching:

1. Definition of terms.
2. Notation and numeration.—Arabic and Roman notation.
3. The four fundamental processes.
4. Properties of numbers.—Classification; divisibility of numbers; factors; divisors; multiples.
5. Fractions.—Common and decimal.
6. Denominate or compound numbers, and their practical application in measurements.
7. Percentage.—Applications in which time is not an element; interest, simple, compound, and exact; partial payments by the United States rule; discount, true, bank, and commercial.
8. Ratio and proportion.
9. Involution and square root.—Their simple application in mensuration.

Note.—The methods should deal thoroughly with primary number. The order of the above topics is, of course, discretionary with the instructor. The study of the mere art of computation is not sufficient; the science of arithmetic must be considered, both the facts and the reason for those facts, how processes are performed and why they are so performed, are to be studied. Original problems illustrating the various topics are to be given by pupils. Instructors are cautioned against taking the time of the arithmetic class with obsolete and impractical processes. The spirit of the above suggestion is to be observed in the other studies of this course.

SECOND RECITATION

Geography

(One recitation daily for twelve weeks.)

Subject matter and methods.

Review of the following topics with special reference to teaching:

1. Definition of terms.
2. Mathematical.—Form, size, and motions of the earth; day and night; the seasons; latitude and longitude; local and standard time.
3. Physical.—The great mountain systems of the earth; the principal rivers, lakes and other bodies of water; climate; soil; tides; ocean currents and trade winds.
4. Description.—General description of the countries of the world.
5. The United States.—Boundaries and extent; States and territories; mountain and river systems; agricultural and mineral productions; industries or occupations; important cities; population; commerce and transcontinental lines of travel; general plan of government.
6. State of New York.—Boundaries and extent; mountains, rivers and lakes; counties; cities and important villages; agricultural and mineral productions; industries or occupations; commerce; railroads and navigable waters; climate; places noted for natural scenery; general plan of government; places of historic interest.
7. The principal countries of the world, especially those of Europe.
8. Races of men.—Location; characteristics; occupations.

Reading

(One recitation daily for subject matter and methods not less than four weeks of the term.)

FIRST TERM

THIRD RECITATION

History of Education

(Three recitations each week throughout the term.)

Drawing

(Two recitations each week throughout the term.)

SECOND TERM

FIRST RECITATION

Language and Grammar

(One recitation daily through the term.)

Subject matter and methods.

Review of the following topics with special reference to teaching:

1. Definition of terms.
2. Parts of speech.—Classes; modifications; inflections.
3. Syntax and analysis of sentences.—Principal clauses; subordinate clauses; classification; sentences and clauses; analysis of clauses; modifiers—words, phrases, clauses.
4. Practical exercises.—Illustrations of the foregoing.
5. Composition.—Plan; subject, heads, thoughts. Compositions about familiar subjects. Letter writing, bills, orders, receipts, acknowledgments, introductions.

SECOND RECITATION

Physiology and hygiene

(Six weeks.)

Subject matter and methods.

1. The skeleton.—The bones; their structure, composition, nourishment, adaptation, technical names of principal bones; kinds of joints, cartilages, ligaments.
2. Muscles.—Kinds; structure, use, mode of action; comparison of muscle, ligament and tendon.
3. Skin.—Structure; functions, glands; hair and nails; cleanliness; bathing; clothing.
4. Food and digestion.—Necessary element of foods; cooking of foods; drinks. Organs of digestion; fluids; all processes involved in the conversion of food into tissue.
5. Circulation.—Object; organs; process; blood, amount, composition; rapidity of circulation.
6. Respiration.—Organs; process of breathing; muscles involved; effects on the blood; impure air; ventilation.
7. Excretory organs.—Skin, kidneys, lungs, intestines.
8. The nervous system.—The brain; spinal cord; cranial and spinal nerves; sympathetic system; effects of stimulants and narcotics.
9. The organs of special sense.—The eye; ear; nose; tongue; skin.

It is required that under the several heads, the matter of hygiene and the effects of stimulants and narcotics shall be thoroughly taught, and that some of the lessons given during the time devoted

to this subject shall illustrate the method of teaching physiology in the several grades.

School Management and School Law

(Twelve weeks. See Syllabus and books prescribed by the Department for uniform examination.)

THIRD RECITATION

Art of Questioning

(Three weeks.)

The remaining weeks to be devoted to a review of the work necessary for the final examinations of the year.

VI. Notes Under Course of Study

1. *The Laws of Mental Development and Principles of Teaching* are to be considered especially in the study of methods of teaching; but as these laws and principles are fundamental to the professional study of the teacher, they can be illustrated and developed in connection with any of the above subjects of study.

2. When the principal is not satisfied with the proficiency of any member in *American History* and *Civil Government*, these studies are to be studied in connection with the regular class work of the school. Under no consideration are these subjects to take any of the regular time given to the training class.

3. Instructors are permitted to spend more time in the study of topics of a purely professional character, provided the class is unusually proficient in the subject-matter branches. In such cases it is required that the Department be notified of the change in the course of study.

4. The subjects of Penmanship and Spelling should receive careful attention from the beginning to the end of the year.

5. Persons graduating from teachers' training classes, hereafter organized, and bringing a "training class certificate" granted under the uniform system, together with a certificate of proficiency from the principal of the school where the work was performed, will be credited with the following subject-matter complete for the courses in the State Normal Schools: Arithmetic, Grammar, Geography, American History and Civil Government.

VII. Observation and Practice Work

1. In addition to receiving methods of teaching on the authority of the instructor, it is very important that the members should be trained to critically observe and intelligently interpret the principles of teaching by being brought in contact with the pupils in the

actual work of imparting instruction. To afford this training, it is expected that the critic teacher, at least twice a week, will give an opportunity to witness practical work, either by taking the class to other departments of the school to observe the work of experienced teachers, or by bringing pupils from other departments to receive a model lesson from the critic teacher.

2. For practice work it is recommended that each member be given actual work in teaching, both by taking charge of a class in other departments of the school, or of the training class, as often as is consistent with the work of the school, and by having pupils brought before the training class to receive a lesson from a member designated for that purpose. At a subsequent recitation let this observation and practice work be reviewed by the critic teacher, the underlying principles clearly brought out and the proper methods forcibly presented. Observation work shall not take the place of the regular daily periods of class instruction.

VIII. Examinations

1. Special examinations in all subjects required for second-grade certificates, and in the additional professional subjects prescribed for training classes, will be held in January and June for members of training classes, and those members who attain a standing of at least seventy-five per cent. in these subjects shall receive certificates which shall be known as "Training Class Certificates," which shall be valid for three years.

At the end of three years' successful teaching, such certificate shall be renewable the same as are first-grade certificates.

2. *The examination* of the training classes under the uniform system shall begin on the third Thursday of January, and shall continue two days, and on the second Wednesday of June, and shall continue three days.

3. It is required that the name of every member shall appear in the report of the examination at the close of the term. The Department reserves the right of refusing payment for the instruction of members not entering the examination or not reaching a fair standing in the subjects embraced in the course of study.

4. Members will be exempt from re-examination in those subjects in which they attained a standing of at least seventy-five per cent. at the next preceding examination held for teachers' training classes, but such exemptions shall not apply to subjects prescribed for that part of the year not yet completed at the time of the examination.

5. Inasmuch as the examination at the close of each term has been appointed with special reference to the convenience of these classes, it is required that the members shall enter no other uniform examination during the term of study.

6. The following extracts from the regulations governing uniform examinations give the requirements for training class certificates and for certificates of the second and third grade:

Training Class Certificates

Term.— These certificates will be issued for a term of three years

Renewals.— Upon the expiration of three years' successful teaching, these certificates shall be renewable under the same conditions that first-grade certificates are renewable.

Qualifications of Candidates

Experience.— Candidates for a certificate of this kind must have been in attendance upon a training class for at least two terms, as provided in the training class regulations.

Educational requirements.—Candidates must attain, in examinations held for training classes, at least seventy-five per cent. in each of the subjects for a second-grade certificate, and, in addition thereto, a standing of seventy-five per cent. in all special subjects designated in the course of study for teachers' training classes.

Dates of examinations.— The examination of training classes shall begin on the third Thursday of January, and shall continue two days, and on the second Wednesday of June, and shall continue three days.

Note.— All other rules of the uniform system of examinations not conflicting with the rules under which these certificates are issued shall apply to and govern the issuing of these certificates.

“Candidates for certificates of the third grade shall be required to pass a written examination in Reading, Arithmetic, Composition, Geography, Grammar, Orthography, Penmanship, Physiology and Hygiene, American History and School Law.”

“Candidates for certificates of the second grade shall be required to pass a written examination in the following subjects: American History, Arithmetic, Civil Government, School Law, Composition, Current Topics, Drawing, Geography, Grammar, Methods and School Economy, Orthography, Penmanship, Reading, and Physiology and Hygiene.”

7. The regulations governing uniform examinations fix the time of holding such examinations, as follows:

Examinations for certificates of the second grade, unless omitted in the discretion of any school commissioner, shall begin on the first Thursday of March and June; second Thursday of January and August; the fourth Friday of April and September, and shall continue two days.

Examinations for first grade shall begin on the first Thursday of March and the second Thursday of August, and shall continue

two days. No examination shall be held upon any other date than those above enumerated, except by direction of the State Superintendent of Public Instruction.

8. A blank form for making a report of the organization and final examination of the class will be furnished by the Department. It is expected that this report will be forwarded within two weeks after the date of the final examination, as the apportionment of public money for the instruction will be assigned to the different institutions at that time.

IX. School Commissioner

1. The duties of the school commissioner to the training class are defined by title XI, chapter 556 of the Laws of 1894.

2. School commissioners are instructed to accept one year's work in a training class as an equivalent for the ten weeks successful experience in teaching required in the regulations governing uniform examinations. Any member without experience as a teacher, failing to secure a training class certificate at the final training class examination, can become a candidate for a second grade certificate at any subsequent regular uniform examination held within one year from the date of such final examination.

3. After visiting the class the school commissioner is directed to immediately forward to this Department a report concerning the number in the class satisfying the conditions of admission, the character and quality of the instruction imparted, and the improvement of the opportunities afforded for observation and practice work. At the close of the term the results of the final examination must also be reported. Blank forms will be provided for these reports. School commissioners will be expected to inspect every class under their jurisdiction as often as once in each month during the term.

4. It is required that the members of the training class shall attend the teachers' institute held in the district in which the class is organized. Each member of the class shall keep a full record of the subjects discussed and methods presented by the instructors, and submit the same to the principal.

X. The Law Creating and Governing Teachers' Training Classes

VIII. CHAP. 556 OF THE LAWS OF 1894, TITLE XI.

TEACHERS' TRAINING CLASSES

Section 1. There shall be annually appropriated out of the income of the United States deposit fund, not otherwise appropriated, the sum of thirty thousand dollars and out of the free school fund the sum of thirty thousand dollars for the instruction of competent

persons in academies and union schools, in the science and practice of common school teaching, under a course to be prescribed by the Superintendent of Public Instruction.

§ 2. The Superintendent of Public Instruction shall designate the academies and union schools in which such instruction shall be given, distributing them among the school commissioner districts of the State, as nearly as may well be, having reference to the number of school districts in each, to location and to the character of the institutions selected.

§ 3. Every academy and union school so designated shall instruct a class of not less than ten nor more than twenty-five scholars, and every scholar admitted to such class shall continue under instruction not less than sixteen weeks. Whenever it shall be shown to the satisfaction of the Superintendent of Public Instruction that any pupil attending such class or classes has been prevented from attending the same for the full term of sixteen weeks, or has attended the first full term, but not the full time in the second term, during any one year; or that for any reason satisfactory to such Superintendent, said class or classes have not been held for the full term of sixteen weeks, such Superintendent may excuse such default and allow to the trustees of the academy or union free school in which said class or classes shall have been instructed, pay for such scholar or scholars for the time actually spent in attendance, or during which said class or classes shall have been under instruction, at the rate of one dollar for each week's instruction, as provided in section five of this title. The Superintendent shall prescribe the conditions of admission to the classes, the course of instruction and the rules and regulations under which said instruction shall be given, and shall, in his discretion, determine the number of classes which may be formed in any one year, in an academy or union school, and the length of time exceeding sixteen weeks during which such instruction may be given.

§ 4. Instruction shall be free to all scholars admitted to such classes, and who have continued in them the length of time required by the third section of this title.

§ 5. The trustee of all academies and union schools in which such instruction shall be given shall be paid from the appropriations named in the first section of this title at the rate of one dollar for each week's instruction to each scholar who has attended for the term of time as required by section three of this title, on the certificate of the Superintendent, to be furnished to the Comptroller.

§ 6. The appropriation provided by this act, for the instruction in academies and union schools in the science and practice of common school teaching, shall be deemed to include, and shall include,

the due inspection and supervision of such instruction by the Superintendent of Public Instruction, and the expenses of such inspection and supervision shall be paid out of said appropriation on vouchers certified by the Superintendent.

§ 7. Each class organized in any academy or union school under appointment by the Superintendent for instruction in the science and practice of common school teaching, shall be subject to the visitation of the school commissioner of the district in which such academy or union school is situated; and it shall be the duty of said school commissioner to advise and assist the principals of said academies or union schools in the organization and management of said classes, and at the close of the term of instruction of said classes, under the direction of the Superintendent, to examine the students in such classes, and to issue teachers' certificates to such as show moral character, fitness and scholastic and professional qualifications worthy thereof.

XI. The Law Transferring Teachers' Training Classes to Superintendent of Public Instruction

CHAPTER 137 OF THE LAWS OF 1889.

An Act to transfer the management and supervision of teachers' classes in academies and union schools from the board of regents to the Superintendent of Public Instruction.

Passed April 15, 1889.

Section 1. The powers and duties conferred and imposed upon the regents of the university by chapter four hundred and twenty-five of the laws of one thousand eight hundred and seventy-seven, and chapter three hundred and eighteen of the laws of one thousand eight hundred and eighty-two, relative to the instruction of classes in academies and union schools in the science and practice of common school teaching, are hereby transferred to the Superintendent of Public Instruction.

§ 2. This act shall take effect immediately.

XII. To Encourage and Promote the Professional Training of Teachers

CHAPTER 1031 OF THE LAWS OF 1895.

An Act to encourage and promote the professional training of teachers.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. The board of education or the public school authorities of any city, except the city of New York, or of any village employing a superintendent of schools, may establish, maintain,

direct and control one or more schools or classes for the professional instruction and training of teachers in the principles of education and in the method of instruction for not less than thirty-eight weeks in each school year.

§ 2. Towards the maintenance and support of these schools and classes established pursuant to this act, or heretofore established and maintained for similar purposes, and whose requirements for admission, and whose course of studies are made with the approval of the State superintendent of public instruction, and under whose direction such classes shall be conducted, the said superintendent is hereby authorized and directed in each year to set apart, to apportion and to pay from the free school fund one dollar for each week of instruction of each pupil, provided, however, that said apportionment and payment shall not exceed in the aggregate one hundred thousand dollars in each year. Such apportionment and payment shall be made upon the report to the local superintendent of schools filed with the State superintendent of public instruction, who shall draw his warrant upon the State treasurer for the amount apportioned.

§ 3. If the total sum to be apportioned and to be paid, as provided by section two of this act, shall in any one year exceed the said sum of one hundred thousand dollars, the said State superintendent of public instruction shall apportion to each school and class its pro rata of said sum upon the basis described in section two of this act.

§ 4. After January first, eighteen hundred and ninety-seven, no person shall be employed or licensed to teach in the primary and grammar schools of any city authorized by law to employ a superintendent of schools, who has not had successful experience in teaching for at least three years, or, in lieu thereof, has not completed a three years' course in, and graduated from a high school or academy having a course of study of not less than three years, approved by the State superintendent of public instruction, or from some institution of learning of equal or higher rank, approved by the same authority, and who subsequently to such graduation, has not graduated from a school or class for the professional training of teachers, having a course of study of not less than thirty-eight weeks, approved by the State superintendent of public instruction. Nothing in this act shall be construed to restrict any board of education of any city from requiring such additional qualifications of teachers as said board may determine; nor shall the provisions of this act preclude the board of education of any city or village from accepting the diploma of any State normal and training school of the State of New York, or a State certificate obtained on examination, as an equivalent for the preparation in scholarship and professional training herein required.

§ 5. All acts and parts of acts inconsistent with this act are hereby repealed.

§ 6. This act shall take effect immediately.

XIII. Syllabus

The following outlines are presented to aid in the study of the methods of teaching. These outlines are given as suggestions to teachers for a plan of work:

Psychology

Brief outline to be used as a general guide.

The Mind:

Its nature unknown;

Only its phenomena can be studied.

How Studied { By introspection.
By observation.

Fundamental	{	Sensibility.	<i>feels.</i>
Divisions.		Intellect.	<i>knows.</i>
		Will.	<i>acts.</i>

Sensibility:

General physical sensibility;

Special senses;

Higher emotions and sentiments;

Consciousness.

General physical sensibility gives feeling of comfort, discomfort, rest, fatigue, hunger, thirst, heat, cold.

Special senses: Smell, taste, touch, hearing, sight.

Kind of knowledge gained from each sense.

Smell, gives knowledge of the odors of material things.

Taste, gives knowledge of the savors of material things.

Touch, gives knowledge of form, smoothness, roughness, hardness, softness, pressure, temperature.

Hearing, gives knowledge of sound and distinguishes noises, musical tones, quantity of sound, quality of sound, pitch, and timbre.

Sight, primarily gives knowledge of colors and forms of plane surfaces; secondarily, in connection with touch, gives knowledge of solidity and the distances and sizes of objects.

Law, ideas which belong to one sense can not be obtained through another sense.

Consciousness, the internal sense accompanies all acts of the mind.

The Intellect:

Primary divisions. { Acquisitive faculties—Sense preception.
 Retentive faculties—Imagination.
 Reproductive faculties—Imagination.
 Elaborative faculties— { Comparison.
 Judgment.
 Regulative faculties—The reason.

Attention : Its nature and importance; its necessity in the acquisition of knowledge; how secured and trained.

Law : The primary facts of knowledge, form, color, sound, weight, savor, odor, etc., can be obtained only by the direct action of material things upon the senses and cannot be taught from books.

Importance of training the senses in the acquisition of the primary facts of knowledge by object lessons.

Precepts and Concepts.

The Memory: Spontaneous and voluntary; how trained; most easily trained in early life.

Laws of association.

Imagination, kinds. { Reproductive.
 Constructive.

Its value in education and in life.

The Elaborative Faculty : The power to judge, compare and reflect, and to work up the knowledge in the mind into new forms.

Inductive and deductive reasoning, analysis and synthesis.

Abstraction and generalization.

The Reason : The power which regulates and guides all the other powers and faculties of the mind.

The Will : Necessity of training; motives; formation of habits.

Law : All the powers of the mind are strengthened by exercise.

History of Education

The following syllabus is intended to give the outline upon which the work in this subject will be based and not to present methods of teaching it.

It is expected, however, that this subject will be taught in a manner to inspire interest therein for its own sake, to arouse a professional spirit, to bring the class into intimate acquaintance and sympathy with the great educators of the past, to secure an intelligent appreciation of current pedagogical discussions, and to beget

serious reflection upon the real nature of education and the true aim of the educator.

To secure these results, the class should

1. Become familiar with the mistakes, the struggles, and the triumphs of the great educators of the past;
2. Trace the growth and development of educational principles and systems;
3. Gain a clear conception of the diverse phases that education has assumed in different nations and ages;
4. Know how largely education and its results have depended upon the conditions of the times and the environments of the people.

Syllabus

I. Introductory : A general view of education among the old Asiatic nations. (Chinese, Hindoos, Israelites, Egyptians and Phoenicians.)

II. Education among the Greeks :

- (a) Comparison of Athenian and Spartan education.
- (b) Noted educators, including Socrates, Plato, Aristotle, Euclid, Xenophon, Strabo, Ptolemy and Pythagoras.

III. Education among the Romans :

- (a) Comparison of Greek and Roman education.
- (b) Noted educators, including Quintilian, Plutarch, Varro, Pliny, Seneca, Saint Jerome, Saint Augustine.
- (c) Effects of Christianity on education.

IV. Education during the Middle Ages:

- (a) Description and explanation of its general character.
- (b) The Benedictines.
- (c) Franciscan and Dominican friars.
- (d) The Liberal Arts
 1. The Trivium.
 2. The Quadrivium.
- (e) Noted educators, including Charlemagne, Alcuin, Thomas Aquinas, Bishop Aldhelm, the "Venerable" Bede, Abelard.

V. The period of the Renaissance :

- (a) Characteristics and causes of the Great Renaissance.
- (b) Noted reformers, including Erasmus, Melancthon, Luther, Sturm, Montaigne, Rabelais, Comenius, Ascham, Bacon.

(c) The teaching societies.

1. The Jesuits.
2. The Port-Royalists (Jansenists).
3. The Oratorians.

VI. Education since the Sixteenth Century :**(a) General characteristics.****(b) Special study of the following educators :**

Fenelon, Locke, Rousseau, Basedow, Pestalozzi, Froebel, Jacotot, Arnold, Bain, Spencer, Mann, Barnard, Page.

(c) Leading facts in the development of common schools in America.**(d) History of the school system of the State of New York.**

1. Higher education.
2. Elementary education.
3. Professional training of teachers.

Art of Questioning

Brief outline to be used as a general guide. Members of the class should be required to conduct recitations in different subjects, employing questions in accordance with instruction given.

1. The purpose of questions {
 - a. To stimulate thought.
 - b. To develop thought.
 - c. To test knowledge.
2. The nature of questions {
 - a. Clear.
 - b. Reasonable.
 - c. Definite.
 - d. Concise.
 - e. Pointed.
3. The origin of questions {
 - a. With the teacher.
 - b. With the pupil.
4. The order and continuity of questions.
5. The manner of asking questions.
6. Different kinds of questions, e. g. leading, alternative, direct, indirect.
7. Different forms of the same question.
8. Consideration of answers as to correctness or incorrectness.
 - (a) Subject-matter.
 - (b) Form.

School Management**I. Organization:****(1.) General appointments of school buildings.**

- (a) Lighting.
- (b) Heating.

- (c) Ventilating.
- (d) Seating.
- (e) Blackboards.
- (2.) Care of school property.
- (3.) Course of study.
 - (a) Length of sessions—recesses.
 - (b) Program of recitations.
 - (c) Program of study.

II. Classification.

Grading of Pupils.

III. Relation of Teacher to:

- (a) Trustees and boards of education.
- (b) Patrons.
- (c) Pupils.

IV. Discipline.

- (1.) Object of:
 - (a) To promote order.
 - (b) To prevent disorder.
 - (c) To correct disorder.
 - (d) To promote study.
 - (e) To promote self-control.
- (2.) Means of:
 - (a) By thorough preparation of the teacher.
 - (b) By keeping the pupils at work.
 - (c) By timely admonition and proper encouragement.
 - (d) By suitable punishments.

Methods in Arithmetic

The mental faculties developed by the study of arithmetic.
The Idea of Number.

Concrete number.

Especial care given to the most approved methods of presenting the subject of number to beginners by means of numerical frame, pictures, counters, and the like.

Abstract number.

The gradual separation of the idea of number from any particular object. The cultivation of the memory by constant drill in the use of abstract number.

Methods of teaching number.

The Grube, the Pestalozzian, the two combined.

Notation and numeration.

The principles of the Arabic and Roman systems. The development of the idea of the order and relation of the figures in numbers, numbers of few orders being used.

The fundamental operations:

The elementary combinations in addition using all the digits.

The steps leading from addition to subtraction; the development of multiplication and division. The use of signs.

Properties of numbers:

The classification and properties of numbers which naturally follow the study of the fundamental operations. The knowledge of the divisibility of numbers applied to factoring, and the application of factoring in determining divisors and multiples. The use of these principles exemplified in cancellation and the employment of cancellation in all possible operations.

Fractions:

The application of the principles already learned to the elementary idea of fraction primarily developed in the child's mind. The distinction between the fraction itself and the expression of the fraction. Decimals governed by the same principles applicable to whole numbers and fractions.

Denominate numbers:

A clear idea of the use of concrete objects wherever practicable, of the standard units of measure, common and metric, and a thorough memorizing of the several tables. The operations do not differ in principle from those already learned. Practical problems entering into the experience of the pupils are of special value.

Percentage:

The principles of percentage are identical with those of fractions, the denominator being the constant number 100.

The rules of business fractions are to be thoroughly known.

Ratio and proportion:

A development of the relation of numbers.

Review:

Unify the work, showing the relation of subjects.

Geography

1. Direction, right, left, points of compass.
2. Distance, units and their application.
3. Definitions of terms developed as far as possible from observations.
4. Map constructed from observation (not copied) of school room and school ground.
5. Maps of town and county, showing streams, villages, railroads, canals, etc.
6. Local industries, natural products, manufactured products.

Earth studied from an artificial globe:

1. Circles.
2. Zones—their climate and principal flora and fauna.
3. Grand divisions of land and water.
4. Transition from globe to map of the world.

Countries:

1. Location.
2. Drainage.
3. Climate and soil determining vegetable and animal products, occupation and character of people.
4. Outline maps rapidly sketched by pupils.
5. Great cities, the natural causes that have determined their location and contributed to their growth.
6. Important facts concerning these cities.
7. Commerce—(a) Domestic and foreign. Principal exports and imports.
(b) Great centers of commerce.
(c) Great highways of commerce, railroads, canals, steamship lines.
9. Imaginary journeys.
10. Comparisons of geographical features of different countries.
11. Form of government.

Mathematical geography:

1. Plane of ecliptic.
2. Relative position of earth and sun in the plane.
3. Movement of earth in plane producing day and night.
4. North star, how located.
5. Inclination and parallelism of axis.
6. Seasons, causes producing them.
7. Width of zones, cause determining.

State of New York:

1. Outline map sketched.
2. Relief map molded; showing mountains, mountain passes, valleys, rivers, lakes.
3. Counties and important cities and villages in each.
4. Principal railroads and canals with important cities and villages along their lines.
5. Important facts associated with noted places.
6. Industries and natural products.

*Language***Oral:**

Object lessons.
Picture lessons.
Story-telling.
Sentence building.
Reproduction exercise.
Narrations.
Descriptions.
Quotations from Classic Authors.

Written:**A. Preparatory work.**

Copying.
Dictation.
Completion of elliptical expressions.
Incorporation of given words in sentences.
Expansion — Substituting phrases for words, and clauses for phrases.
Contraction — Substituting phrases for clauses, words for phrases, and the use of elliptical expressions.
Choice of words — Involving definition, and the use of synonyms.
The parts of speech and their classification.
The classification and analysis of sentences.
Syntactical constructions.
English word analysis.
Mechanics — Involving capitalization, punctuation, headings, margins and paragraphing.

B. Applications.

Letters.
Business and social forms.
Narratives.
Descriptions.
Paraphrase.

C. Criticism and correction.

Order of, in importance —

- The thought expressed;
- The language used;
- The mechanics.

Corrections—T, tr., Λ, Caps, l. c., O, ¶.

Reading

1. Aim.
2. Blackboard exercises.— Charts.
3. Words selected from vocabulary already known by pupils.
4. Pupils taught to recognize by sight the words of a proposed sentence.
5. Sentence read silently, then orally.
6. New words taught, and new sentences read.
7. Necessary steps in reading:
 - (a) Perfect word knowledge, (b) Silent reading, (c) Oral expression.
8. Oral reading of sentence not to be attempted until the thought is in the mind.
9. Elementary sounds with diacritical marks to be taught, (a) to give ability to call new words without help, (b) to improve articulation, (c) to correct defective speech.
10. General drills in pronouncing difficult combinations of elementary sounds.
11. Transition to reading books.
12. Supplementary reading, such as newspapers, histories, and standard literature
13. Discussion of advantages and disadvantages of different methods of teaching reading.
14. How to conduct recitations in advanced reading.

*Methods in Spelling***I. Oral:**

- (a) Advantages.
- (b) Disadvantages.
- (c) Application.

II. Written:

- (a) Advantages.
- (b) Disadvantages.
- (c) Application.

III. Syllabication and accent:

IV. Word analysis:

- (a) Stems.
- (b) Prefixes.
- (c) Suffixes.

V. Diacritical marking.

VI. Exercises in articulation.

Drawing

I. Value of a knowledge of the subject.

II. Color:

- (a) Knowledge of six positive spectrum colors, viz.: red, orange, yellow, green, blue, violet.
- (b) Recognition of twelve standard hues, viz.: violet-red, orange-yellow, green-yellow, blue-green, violet-blue, red-violet, orange-red, red-orange, yellow-orange, yellow-green, green-blue, blue-violet.
- (c) Arrange hues and positive colors as here indicated, completing spectrum scale with eighteen colors.

Vio. R.	R.	O. R.	R. O.	O.	Y. O.	O. Y.	Y.	G. Y.	Y. G.	G.	B. G.	G. B.	B.	Vio. B.	B. Vio.	Vio.	R. Vio.
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III. Form. Knowledge of geometric type solids:

Wholes.—1. Sphere. 2. Cylinder. 3. Cube.

Bisections.—1. Half-sphere. 2. Half-cylinder. 3. Half-cube.

Quadrisections as New Wholes.—1. Square prism. 2. Triangular prism. 3. Square plinth. 4. Circular plinth.

Geometric Type Solids.—Variations. (a) Spheriods. (b) Oblate spheriod. (c) Prolate spheriod. (d) Ovoid. (e) Cone. (f.) Pyramid.

IV. Parts and their relations:

- (1.) Surface. (a) Kinds. (b) Parts—faces.
- (2.) Faces. (a) Kinds. (b) Number. (c) Shape. (d) Location. (e) Directions. (f) Parts.
- (3.) Edges. (a) Kinds. (b) Number. (c) Location. (d) Directions.

- (4) Angles — Right — Oblique $\left\{ \begin{array}{l} \text{acute.} \\ \text{obtuse.} \end{array} \right.$
- (5.) Curvilinear, mixtilinear and rectilinear geometric plane figures and their details as representing faces of the solids, i. e., circle, square, half circle, oblong, triangle.
- (6.) Bisect spheroids and ovoid to obtain geometric figures, circle, ellipse and oval.
- (7.) Circle and circular figures. (a) Circumference. (b) Center. (c) Diameter. (d) Radius.
- (8) Rectangles. $\left\{ \begin{array}{l} 1. \text{ Square and similar} \\ \text{forms.} \\ 2. \text{ Oblong} \end{array} \right. \left\{ \begin{array}{l} (a) \text{ Diameters.} \\ (b) \text{ Diagonals.} \end{array} \right.$
- (9.) Triangles and similar forms. (a) Base. (b) Apex. (c) Altitude.
- (10.) Three kinds of angles used in industrial drawing.

V. Practical knowledge of use of tools and materials:

Mechanical:

- (1.) Scale, compasses, hard pencil, and eraser are used.
- (2.) Lines — Should always be sharp and clean cut, but may be either dark or light.
- (3.) Measure — Proper method of marking off distances, ruling, use of compasses and of making erasures.

Freehand:

- (1.) Soft pencil, charcoal, crayon and blender.
- (2.) Lines — In drawing, the line must express as nearly as possible the character of the surface of the object, must be light or dark, fine or broad, abruptly broken or continuous, according to the contour of the object.
- (3) Kinds as to $\left\{ \begin{array}{l} \text{direction.} \\ \text{relative position.} \end{array} \right.$

VI. Divisions of work:

Geometric drawing:

- (1.) Geometric plane figures and regular polygons.
- (2.) Working drawings — Mechanical — Principles. (a) The representation of visible outlines and edges. (b) The representation of invisible outlines and edges. (c) Parallel cross sections, plans and elevations. (d) Oblique sections. (e) Drawing to scale.
- (3.) Freehand applications — Plans and elevations of objects based upon the type forms.
- (4.) Development — Pattern making — First draw the developments freehand on practice paper, then accurately with ruler on paper or in the books. If the

model is to be constructed from the pattern, draw on oak tag paper, cut, fold, and glue. The developments may be used for constructing simple useful objects in paper, leather, cloth or wood. The surface of the frustum of a square pyramid or cone may all be drawn radiating from a point. This should be illustrated by turning the model of a pyramid on its sides and tracing about each triangular face in succession.

VII. Decorative drawing.—(Instrumental and freehand.):

Color. (1.) Classification.—Harmonies. (a) Key colors; (b) tints, *i. e.*, modification of color by white or increased light; (c) shades, *i. e.*, modification of colors by black or diminished light.

(2.) Dominant harmony is a symmetrical arrangement of any color with its tints and shades.

(3.) Complementary colors — Composed of colors which together will produce white or grey.

(4.) Complementary harmony — Composed of complementary colors.

(5.) Analogous harmony — Composed of colors allied to the spectrum; borrowing tones from neighboring scales.

(6.) Contrasted harmony — Any color found in the spectrum in juxta-position with the grey of the atmosphere.

(7.) Comparison of colors. (a) Warm and cold colors. (b) Active and passive. (c) Negative colors.

Botanical Drawing.— Draw from the natural forms.

Teach conventionalization. Draw leaf and flower forms conventionalized.

Historic Ornament.— (1.) Study illustrations of historic ornament for (a) modified regular units; (b) bilateral historic units; (c) changes made from natural forms; (d) plan of construction; (e) bilateral main lines in the units both of borders and limited surface decorations; (f) the natural forms used, with adaptation and conventionalization of these forms; (g) the technical principles upon which the designs have been constructed, namely, fitness, order, growth, unity and repose. (h) Draw from a copy of standard decorative design, giving special attention to expression, character of line, accent and brilliancy, and beauty in execution.

Design.— 1st Principles — Contrast, unity, strength, variety, and rhythm. Units, based on the square and on other regular geometric figures. 2d. Principles — Growth, symmetry, balance, and distribution.

- (8.) Study illustrations of (a) balanced curves, (b) bilateral main lines, (c) the law of balance, subtle radiation, tangential union of all parts, and the laws of plant growth. (d) Draw main lines in conventional but beautiful sprays, and clothe these with units, elements, or forms, of design.

VIII. Pictorial drawing:

Knowledge of elementary pictorial art, based on the correct representation of geometric type solids according to principles of perspective, and the application of these same principles in the representation of other objects. The perspective faculties should be quickened to a keen discrimination of proportion, and the accurate observing of form and representing it should be stimulated. Practical and common sense methods should be employed to obtain good results; peculiarities and mannerisms should be avoided; simplicity and truthfulness should be the aim, and pupils should learn to draw by drawing.

- (1.) Representation of solidity — Expressed by shading.
- (2.) Principles — Fore-shortening and convergence.
- (3.) Problems—(a) Lines bounding unequal plain faces, equally fore-shortened. (b) Lines bounding equal plane faces, unequally fore-shortened. (c) Lines bounding unequal plane faces, unequally fore-shortened.
- (4.) Principle—Convergence at unequal angles, and use of diagonals to find centers.
- (5.) Relation of axes —When drawing, illustrate by rapid sketches many different type solids, as (a) ovoids and ovoidal objects in various positions sketching main axes first; (b) cone and conical objects in various positions or on different axes; (c) pyramid and pyramidal objects on main axes; (d) cylinder and cylindrical objects. (e) Make finished drawings of each ovoid, cone, pyramid and cylinder and of some objects based upon them. (f) Draw groups of two or three objects based upon the type previously studied. Arrange groups artistically.

Note.—Never miss an opportunity to study good pictorial art. Sketch in connection with history, geography and natural science lessons, and learn to use drawings as a natural and easy means of expressing thought.

IX. Clear-cut definitions of principal terms and statements of important facts:

Under this division of the subject, practical applications — *i. e.*, ability to represent by drawings — of all curves, geometric plane figures, working drawings, sectional views, ground plans, elevations and fore-shortening are essential to a teaching knowledge of industrial drawing.

American History

I. America previous to Columbus.

The Northmen; the mound builders; the Indians, their character, habits, government, number, distribution, location of tribes, especially of the Iroquois and Algonquins.

II. America, 1492-1607.

Exploration: (a) Spanish; (b) French; (c) English.

III. America, 1607-1754.

Settlement: (a) Spanish; (b) French; (c) English; (d) Dutch; (e) by the Swedes.

IV. America, 1754-1789.

The French war, the years preceding the Revolution; the Revolution; the time of the Confederation.

V. The United States, 1789, to the present time.

The different administrations and their leading events; the political parties; the growth of territory; the formation of new States.

VI. The history of the State of New York.

In addition to the topics usually treated in the text-books on United States history: The settlement of the Mohawk valley, and the contest with the French for central and northern York; the Dongan charter; Leisler's rebellion; the Zenger trial; the change from colonial to State government; the contest over the adoption of the constitution; the principal governors; the Erie canal; the public school system.

Note.—In the study of the above topics the following details should be noted: the dates of the leading events, such as shown above; the approximate time and general order of time of other events; the causes and results of war; the number and condition of the people at the various times; the location of places historically important; inventions; men of letters and their writings; internal improvements, including canals and railroads.

Civil Government

- I. The different forms of government.
- II. The Constitution of the United States.
Provisions; principles.
- III. The revised constitution of the State of New York.
Comparison with the National Constitution as to main features.
- IV. The three departments of national and state government.
- V. Officers, State and United States.
How chosen; eligibility; length of term, duties, extent and limitations of power.
- VI. Government of the counties, cities, and towns of the State of New York.
- VII. Citizenship.
How acquired; privileges; duties.
- VIII. Electors.
Qualifications.
- IX. Discussion of the fundamental principles of our national and State government.
- X. Discussion of the fundamental differences of political parties.
- XI. The functions of political machinery. (a) *Caucuses*; (b) *conventions*.

School Law

- I. State Superintendent.
(a) Election of; (b) Powers of, pertaining to teachers; to trustees; to school commissioners.
- II. School commissioners.
(a) Election of; (b) Powers of, pertaining to teachers; to trustees; to school districts.
- III. Trustees.
(a) Election of; (b) Changing number of; (c) Powers of pertaining to teachers; to districts; (d) Duties of, pertaining to teachers; to districts.

IV. Teachers.

- (a) Qualifications; (b) Powers of, pertaining to school discipline; to methods of instruction; (c) Duties of, pertaining to school register; to school property.

V. District meetings.

- (a) Annual — time of holding; powers of.
(b) Special — how called, powers of.

VI. Voters — Qualifications of.

VII. State and other school moneys, their apportionment and distribution.

REGULATIONS FOR TEACHERS' TRAINING SCHOOLS AND CLASSES IN CITIES**STATE OF NEW YORK****DEPARTMENT OF PUBLIC INSTRUCTION
SUPERINTENDENT'S OFFICE**

ALBANY, N. Y., *April 6, 1896*

The following regulations for the organization and government of Teachers' Training Schools and Classes in cities, under the provisions of chapter 1031, Laws of 1895, are hereby prescribed.

CHARLES R. SKINNER,
State Superintendent.

City Training Classes

The following regulations governing teachers' training schools and classes have been prescribed in accordance with chapter 1031 of the Laws of 1895, entitled an Act to Encourage and to Promote the Professional Training of Teachers.

Attention is called to the regulation adopted, to the course of study arranged, and to the provisions of law relating to city training classes.

I. Appointments

"The Board of Education or the public school authorities of any city, except the city of New York, or of any village employing a superintendent of schools, may establish, maintain, direct and control one or more schools or classes for the professional instruction and training of teachers in the principles of education and in

the method of instruction for not less than 38 weeks in each school year."

II. Qualifications for Admission

1. Candidates must be at least 17 years of age at the time of entrance.

2. They must subscribe, in good faith, to the following declaration: "We, the subscribers, hereby declare that our object in asking admission to the training school or class is to prepare ourselves for teaching; and that it is our purpose to engage in teaching in the public schools of the State of New York, at the completion of such preparation."

3. Before admission they must hold as a minimum qualification a diploma of graduation from a high school or an academy having a course of study approved by the State Superintendent of Public Instruction, or a diploma from an institution of equal or higher rank approved by the same authority, as provided under the law. Additional qualifications may be prescribed by boards of education.

4. Graduates from institutions in the State of New York, applying for admission to these schools or classes will be required to file with the local superintendent of schools a certificate from the principal teacher of the high school or other institution from which they were graduated, setting forth the fact of graduation on the completion of the required course duly approved by the State Superintendent of Public Instruction. The Department will publish from time to time a list of the institutions whose course of study has been approved.

5. Candidates from other States, applying for admission, in order to qualify for entrance to any training class, shall present credentials of graduation from a high school or an institution of equal or higher rank having a course of study at least equivalent to the high school course of study prescribed as a basis for entrance to training classes in this State. Such credentials shall be forwarded to the State Superintendent for approval.

III. Organization

1. The school year is divided into two terms, but no school year shall consist of more than 40 weeks.

2. The compensation allowed institutions for the instruction will be at the rate of \$1 for each week's instruction of each member.

3. At least four hours every school day must be occupied in study or in instruction on the topics laid down in the course of

study, or in the observation of model teaching, or in practice work.

4. Two blank forms for notice of organization will be furnished to each institution. These blanks must be properly filled, and one be forwarded to the Department at the end of the third week after the organization of the class. The other must be filed by the Superintendent of Schools for inspection by the proper school officers.

IV. Rulings and Requirements

1. No person shall be admitted to the class after the report of organization has been forwarded to the Department.

2. No allowance can be made for any pupil not shown by reports to have been eligible to enter the class.

3. No allowance will be made for any pupil who leaves the class before the expiration of the year, except by permission of the State Superintendent, and no such permission will be granted during the year, simply in order that the candidate may teach.

4. When the class is organized, the qualification for admission of each candidate shall be entered in the place designated for such entry in the "Teachers' Training Class Daily Register," and the credentials thereof filed for inspection in the office of the Superintendent of Schools.

5. A "Teachers' Training Class Daily Register" will be furnished for each class, and the daily attendance of each member, upon each recitation, recorded therein.

V. Course of Study

This course is designed as a minimum to meet the requirements of chapter 1031 of the Laws of 1895.

The subjects designated therein shall be completed in not less than 450 hours.

The number of hours to be devoted to each subject shall be determined by the local superintendent of schools. The number of hours placed opposite the several subjects is to be regarded as suggestive only, and as indicative of their relative value.

Minimum Course of Study in Teachers' Training Schools or Classes in Cities.

I.

1. Psychology and Principles of Education.....	90 Hours.
2. History of Education.....	30 "
3. School Management	20 "

4.	Methods in Mathematics.....	40	Hours.
5.	“ “ Nature Study { Plants..... Animals..... Minerals..... } and Physiology and Hygiene..... }	40	“
6.	“ “ Reading, Spelling and Phonics.....	30	“
7.	“ “ Language, Composition, and Gram- mar.....	40	“
8.	“ “ Geography.....	30	“
9.	“ “ Form Study and Drawing.....	40	“
10.	History, Civics, and School Law.....	30	“
11.	Physical Culture, with Methods.....	40	“
12.	Methods in Music.....	20	“

II.

At least 50 hours shall be spent by each member of the training class in practice teaching.

VI. Examinations

1. The Department of Public Instruction will, on application of the local superintendent of schools, furnish special examinations in the several subjects prescribed in the “Course of Study,” in order that the members of the Training School or Class may become eligible to appointment to schools in this State other than those of their own city.
2. These examinations shall begin on the third Thursday of January, and on the second Wednesday of June.
3. It is required that the name of every member electing to take the examination shall appear in the report of the examination at the close of the term. The Department reserves the right of refusing payment for the instruction of members not reaching a fair standing in the subjects embraced in the course of study.
4. Members will be exempt from re-examination in those subjects in which they attained a standing of at least 75 per cent. at the next preceding examination; but members shall not be admitted to the examination in any subject which they have not regularly pursued in class.
5. Inasmuch as the examination at the close of each term has been appointed with special reference to the convenience of these classes, it is required that the members shall enter no other uniform examination during the term of study.

VII. Certificates

1. Members of training schools or classes, who attain a standing of 75 per cent. in the several subjects in which they are examined will receive a Training Class Certificate if the city superintendent of schools shall state that he deems them worthy to receive such certificates.

2. Training Class Certificates are valid for three years, and at the end of such time of successful teaching are renewable the same as are first grade certificates, under the State uniform examinations.

4. STATISTICAL TABLES

(A). List of Institutions that Organized Teachers' Training Classes for First and Second Terms, 1895-96, with Amount of Money Apportioned to Each Institution Each Term, Showing Total for Each County

County	NAME OF INSTITUTION	First term	Second term	Total	Total by counties
Albany	\$367	\$412	\$769	\$769
Allegany	162	277	439	439
	170	177	347	1,821
	160	163	323	
	314	368	682	
	189	214	393	
Broome	360	360	708
Cattaraugus	159	200	359	359
Chautauque	223	294	517	517
	122	.....	122	1,504
	360	495	855	
	380	400	780	848
	104	152	256	256
	114	190	304	304
	244	377	621	621
	151	173	323	323
	166	144	310	310
	180	174	354	354
	197	205	402	402
	221	226	447	457
	216	169	385	385
	180	185	365	750
	169	219	388	1,165
	176	296	474	
	153	150	303	
	87	189	276	276
	289	286	575	575
	285	385	670	1,325
	190	175	365	
	197	202	399	1,076
	432	430	862	862
	281	342	623	623
	201	204	405	405
	249	393	642	473
Chemung
Chenango
Delaware
Dutchess
Erle
Essex
Franklin
Genesee
Herkimer
Jefferson
Lewis
Livingston
Madison
Meares
Montgomery
Niagara
Oswego

TEACHERS' TRAINING CLASSES

County	1900	1910	1920	1930	1940
Onondaga	100	223	418	418	4,400
Baldwinsville Free Academy	204	224	428	428	
East Syracuse Union School	400	450	900	900	
	431	479	1,267	1,267	
	14	84	844	844	
Ontario	181	167	848	848	448
Oswego	407	398	798	798	
	280	242	472	472	
Osceola	288	278	668	668	2,828
	198	283	428	428	
Otsego	246	264	650	650	1,487
	216	244	460	460	
	158	174	337	337	
Rensselaer	160	160	368	368	1,711
	161	293	444	444	
St. Lawrence	302	607	890	890	490
Saratoga	214	216	430	430	286
Schuyler	161	153	298	298	300
Stenben	142	218	300	300	1,324
	198	321	619	619	
	243	196	458	458	
Sullivan	158	234	377	377	355
Tioga	164	190	355	355	778
Tompkins	160	303	463	463	1,127
	102	268	310	310	
Ulster	203	297	629	629	801
	254	344	598	598	448
Warren	201	230	481	481	805
Washington	144	226	370	370	1,031
	141	307	448	448	
Whitehall Union School	118	302	480	480	
Clyde High School	221	415	415	415	
Palmira Classical Union School	272	228	444	444	
Arcade Union School	292	315	587	587	
Pike Seminary	161	297	529	529	
	292	181	181	181	
	160	357	599	599	
Tates	160	180	349	349	349
Totals	\$15,846	\$19,722	\$36,569	\$36,569	\$35,500

STATISTICAL TABLES — (Continued)

(B.) Statistics showing condition of Teachers' Training Classes for the First Term of school year, 1895-96

County	NAME OF INSTITUTION	NUMBER OF STUDENTS REPORTED			Visits by school commissioners	Apportionment to each institution
		Males	Women	Total		
Albany	Albany High School	23	23	46	1	\$257 00
Allegany	.....	2	11	13	1	163 00
	.....	5	5	10	1	170 00
	.....	2	6	8	1	160 00
	.....	3	15	18	1	314 00
Breome	.....	2	9	11	1	185 00
	.....	4	4	8	1	.....
Cattaraugus	Windsor Union School	6	4	10	1	169 00
Chautauque	Chamberlain Institute	5	5	10	1	233 00
	Forestville Free Academy	6	9	15	1	122 00
	Frewsburg Union School	4	8	12	1	380 00
	Jamestown High School	1	22	23	1	380 00
Chemung	Elmira Free Academy	.....	21	21	1	104 00
Chenango	Norwich Union School	.....	7	7	1	114 00
Delaware	Delaware Literary Institute	3	14	17	1	244 00
Dutchess	.....	.....	20	20	12	151 00
Erie	.....	4	7	11	.....	168 00
Essex	.....	2	8	10	1	190 00
Franklin	.....	3	7	10	1	197 00
Genesee	.....	1	11	12	1	231 00
Herkimer	.....	1	12	13	6	216 00
Jefferson	.....	4	9	13	4	180 00
	.....	3	7	10	4	180 00
Lewis	.....	4	7	11	2	180 00
	.....	3	8	11	6	176 00
	.....	2	8	10	3	153 00
Livingston	Danville Union School	1	10	11	6	87 00
Madison	De Ruyter Union School	5	11	16	3	269 00
	.....	4	15	19	1	285 00
Montrose	.....	.....	12	12	4	190 00
	.....	.....	12	12	3	197 00
	.....	.....	24	24	2	432 00
Montgomery	St. Johnsville High School	5	11	16	1	281 00

TEACHERS' TRAINING CLASSES

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Niagara	Lockport Union School	11	875	1,065	156	218	\$15,848 00
Onondaga	Union Free Academy	12	10	12	1	1	240 00
	Baldwinsville Free Academy	10	10	12	3	2	196 00
	East Syracuse Union School	14	14	18	4	5	304 00
	Fabius Union School	20	22	25	4	11	322 00
		32	30	35	1	1	450 00
		30	30	35	3	2	568 00
		4	4	6	1	4	431 00
		9	9	12	1	1	16 00
		20	20	24	1	1	181 00
		12	12	15	3	6	407 00
		13	13	21	3	8	230 00
		7	7	11	3	8	288 00
		9	9	19	2	6	195 00
		10	10	15	1	1	206 00
		9	9	11	2	1	216 00
		2	2	11	1	1	153 00
		1	1	10	1	2	169 00
		1	1	10	1	3	101 00
		25	25	26	4	1	392 00
		13	13	13	1	2	214 00
		11	11	14	3	3	161 00
		8	8	10	2	1	142 00
		4	4	13	2	1	198 00
		1	1	16	3	2	243 00
		10	10	11	1	4	153 00
		7	7	11	1	6	156 00
		12	12	12	1	1	160 00
		10	10	12	1	4	102 00
		14	14	14	1	3	232 00
		14	14	17	2	4	254 00
		10	10	14	1	1	201 00
		11	11	11	2	1	144 00
		17	17	17	2	3	141 00
		10	10	10	3	7	118 00
		10	10	16	2	1	221 00
		16	16	16	1	4	272 00
		15	15	18	1	6	232 00
		17	17	18	2	3	181 00
		4	4	10	6	1	232 00
		4	4	17	2	5	166 00
		4	4	10	2	1	106 00
Totals		190	875	1,065	156	218	\$15,848 00

Lockport Union School
Union Free Academy
Baldwinsville Free Academy
East Syracuse Union School
Fabius Union School

Glenn Falls Union School
Sandy Hill Union School

Arcadia Union School
Pike Cemetery

STATISTICAL TABLES — (Continued)
 (C.) Statistics showing the condition of Teachers' Training Classes for the Second Term of school year, 1895-96

County	NAME OF INSTITUTION	NUMBER OF STUDENTS REPORTED			Visits by school commissioners	Number who had already taught	Apportionment to each institution
		Men	Women	Total			
Albany	2	23	25	4	1	\$412 00
Allegany	5	12	17	1	11	277 00
	5	4	9	2	.....	177 00
	3	8	11	1	.....	193 00
Brecon	3	17	20	1	6	368 00
	5	7	12	3	3	214 00
Cattaraugus	9	3	12	1	0	309 00
Chautauque	6	6	12	3	6	200 00
	7	8	15	2	7	294 00
	1	24	25	.....	1	495 00
Chemung	25	25	6	3	460 00
Chenango	9	9	1	3	162 00
Delaware	2	9	11	3	2	190 00
Dutchess	1	19	20	15	6	377 00
Erie	3	8	11	.....	.....	172 00
Essex	1	8	9	1	1	144 00
Franklin	3	7	10	3	3	174 00
Genesee	3	13	16	.....	3	205 00
Herkimer	1	12	13	.....	.....	226 00
Jefferson	2	8	10	2	4	169 00
	3	7	10	5	.....	185 00
Lewis	5	8	13	2	7	219 00
	3	12	15	1	11	296 00
	4	10	14	1	9	150 00
Livingston	1	8	9	3	6	189 00
Madison	4	12	16	2	3	285 00
	5	17	22	1	1	345 00
Monroe	10	10	4	1	175 00
	11	11	4	.....	202 00
Montgomery	7	18	25	2	.....	480 00
Niagara	11	11	22	1	9	342 00
	11	11	1	.....	304 00
	St. Johnsville High School	.....	.....	.....	.....	.....	.....
	Lockport Union School	.....	.....	.....	.....	.....	.....

TEACHERS' TRAINING CLASSES

Oswego	2	12	12	232 00
Oswego	5	10	12	222 00
Oswego	4	9	14	234 00
Oswego	4	14	18	321 00
Oswego	4	20	34	450 00
Oswego	7	27	37	679 00
Oswego	7	18	26	413 00
Oswego	1	5	6	84 00
Oswego	1	8	9	167 00
Oswego	4	19	23	306 00
Oswego	4	10	13	242 00
Oswego	8	14	22	378 00
Oswego	8	8	14	233 00
Oswego	9	12	21	364 00
Oswego	6	8	14	244 00
Oswego	1	8	10	174 00
Oswego	1	9	10	189 00
Oswego	1	14	15	283 00
Oswego	1	24	24	567 00
Oswego	1	14	16	316 00
Oswego	3	11	16	182 00
Oswego	3	9	11	213 00
Oswego	6	17	17	321 00
Oswego	1	18	14	185 00
Oswego	3	9	13	224 00
Oswego	5	7	12	189 00
Oswego	5	15	18	303 00
Oswego	2	10	12	208 00
Oswego	2	17	17	367 00
Oswego	6	14	16	344 00
Oswego	4	9	13	230 00
Oswego	4	11	11	326 00
Oswego	3	14	14	307 00
Oswego	3	14	17	362 00
Oswego	3	11	16	415 00
Oswego	3	18	13	233 00
Oswego	3	13	16	315 00
Oswego	1	15	16	297 00
Oswego	4	12	16	357 00
Oswego	2	7	16	180 00
Totals	203	636	1,069	\$19,723 00

(D.) Statistics showing by classes the maximum number of students reported either term, the number of candidates for certificates, and the number of certificates granted.

County	NAME OF INSTITUTION	MAXIMUM NUMBER OF STUDENTS REPORTED EITHER TERM			Number of candidates for certificates	Number of certificates granted
		Males	Women	Total		
Albany	.....	2	23	25	22	9
Allegany	.....	5	12	17	11	11
	.....	3	5	8	9	7
	.....	3	8	11	15	8
	.....	3	17	20	8	6
Broome	.....	6	7	13	8	7
Cattaraugus	.....	9	2	11	8	3
Chautauque	.....	7	8	15	9	3
	.....	4	8	12	13	11
	.....	1	24	25	17	11
Chemung	.....	1	25	26	20	19
Chenango	.....	3	9	12	7	5
Delaware	.....	1	14	15	8	3
Dutchess	.....	3	19	22	16	12
Erie	.....	3	8	11	9	1
Essex	.....	3	10	13	7	5
Franklin	.....	3	7	10	9	9
Greene	.....	3	13	16	7	3
Herkimer	.....	1	12	13	13	12
Jefferson	.....	4	9	13	9	13
	Adams Collegiate Institute.....					
	Parker Union School.....					
	Westport Union School.....					
	Franklin Academy.....					
	Batavia Union School.....					
	Ilton Union School.....					
	Windeor Union School.....					
	Union Union School.....					

TEACHERS' TRAINING CLASSES

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Lewis	3	7	10	8	3
Livingston	5	8	13	10	6
Madison	5	12	15	10	5
Monroe	4	10	14	7	4
Montgomery	1	10	11	8	7
Niagara	4	12	18	15	13
Oneida	5	17	23	18	18
Onondaga .....	.....	12	12	10	10
.....	.....	12	11	11	10
.....	.....	24	24	24	21
.....	7	13	20	16	5
.....	.....	11	11	11	11
.....	.....	12	12	12	5
.....	2	10	12	12	11
.....	5	9	14	11	4
.....	4	14	18	13	17
.....	4	20	24	23	20
.....	.....	37	37	31	10
.....	7	18	25	21	16
.....	1	6	6	4	2
.....	3	9	12	9	8
.....	4	20	24	21	14
.....	3	12	15	12	9
.....	8	14	23	15	7
.....	6	8	14	8	4
.....	9	12	21	16	15
.....	5	10	15	10	19
.....	2	8	11	9	4
.....	1	6	10	7	5
.....	1	14	15	9	2
.....	1	25	25	24	17
.....	.....	14	15	10	8
.....	1	11	14	8	3
.....	3	9	11	9	9
.....	2	11	17	10	6
.....	6	11	17	10	4
.....	1	18	18	10	4
.....	3	9	12	7	6
.....	5	7	12	10	4
.....	.....	15	15	11	11
.....	2	10	12	9	7
.....	.....	17	17	13	13
.....	5	14	19	15	14
.....	4	10	14	11	5
.....	.....	11	11	11	5
.....	.....	17	17	9	5
.....	.....	14	17	11	9
.....	3	11	14	10	.....
.....	5	16	16	13	7
.....	8	15	18	15	11

Corinth Union School.

Cook Academy

Glens Falls Union School.
Sandy Hill Union School.
Whitehall Union School.
Clyde High School.
Palmyra Classical Union.

STATISTICAL TABLES—(Continued)

(D.) Statistics showing by classes the maximum number of students reported either term, the number of candidates for certificates, and the number of certificates granted.

County	NAME OF INSTITUTION	MAXIMUM NUMBER OF STUDENTS REPORTED EITHER TERM			Number of candidates for certificates*	Number of certificates granted
		Men	Women	Total		
Wyoming.....	Arcade Union School	1	17	18	14	5
	Pike Seminary.....	4	6	10	.....	...
	Warsaw Union School.....	4	13	17	16	11
Yates.....	Dundee Union School.....	3	7	10	7	3
Totals .....	.....	217	934	1,151	861	572

* Candidates for a certificate of this kind must have been in attendance upon a training class for at least one year.

STATISTICAL TABLES—(Continued)
(E.) Teachers' Training Classes—General Summary from 1889 to 1896

TERM	Number of classes organized	NUMBER OF PUPILS REGISTERED			Number of visits by school committee	Number who had already taught.	Number of scholars allowed	Amount paid
		Men	Women	Total				
1889-1890, First term.....	49	162	596	758	34	256	680	\$7,982 00
1889-1890, Second term.....	59	225	844	1,069	36	327	928	10,863 00
1890-1891, First term.....	61	221	758	979	39	304	873	14,759 00
1890-1891, Second term.....	56	236	726	962	26	291	808	13,087 00
1891-1892, First term.....	82	262	1,012	1,274	52	464	1,053	17,612 00
1891-1892, Second term.....	77	292	964	1,256	54	390	1,070	16,774 00
1892-1893, First term.....	95	304	1,120	1,424	78	456	1,153	19,536 00
1892-1893, Second term.....	100	339	1,179	1,518	81	518	1,370	21,740 00
1893-1894, First term.....	109	396	1,276	1,672	80	558	1,317	21,998 00
1893-1894, Second term.....	118	469	1,511	1,980	80	702	1,709	26,627 00
1894-1895, First term.....	127	531	1,621	2,152	189	681	1,655	27,189 00
1894-1895, Second term.....	140	642	1,840	2,482	233	799	2,212	36,063 00
1895-1896, First term.....	74	190	875	1,065	156	212	881	15,846 00
1895-1896, Second term.....	72	203	886	1,089	156	237	1,050	19,723 00

EXHIBIT No. 17

CHILD STUDY

1. INFLUENCE OF LAST YEAR'S REPORT AND PUBLIC RECOGNITION WHICH IT GAINED FOR THE WORK; OPINIONS OF THE PRESS; NEW DEVELOPMENTS IN CHILD STUDY DURING THE YEAR.

2. ADDITIONAL RESULTS IN THE STUDY OF CHILDREN'S HOPES AND IN INSTITUTE WORK CONDUCTED BY ANNA K. EGGLESTON.

3. REPORTS OF WORK CARRIED ON IN NORMAL SCHOOLS AND CITIES.

4. REPORTS OF CHILD STUDY WORK IN NEW YORK STATE IN INSTITUTIONS NOT DIRECTLY UNDER THE SUPERVISION OF THE STATE DEPARTMENT.

5. SUGGESTIONS FOR THE ENLARGEMENT OF THE WORK OF THE CHILD STUDY DIVISION.

6. ORIGINAL ARTICLES ON SPECIAL TOPICS.

a. VALUABLE BOOKS ON CHILD STUDY, C. P. COLGROVE.

b. HOW TO TEST THE SENSES, F. W. SMEDLEY.

c. SUGGESTIONS FOR THE WORK THAT CAN BE DONE BY
TEACHERS, F. EBY.

d. REPORT ON CHILDREN'S READINGS, H. C. HENDERSON.

CHILD STUDY.

1. REPORT OF THE DEPARTMENT OF CHILD STUDY

CHARLES H. THURBER, A. M., DIRECTOR.

Last year the report of this work was necessarily prepared so early that the extent and influence of the new movement could only be partially stated. The progress of the work since that report appeared has more than justified the highest hopes that were entertained. No movement undertaken by the State Department has received wider attention from the press and from educators in other States. The results of the work have been presented not only throughout New York State, but by Miss Eggleston, Professor Thurber and Superintendent Skinner at the meeting of the Illinois Society for Child Study in Chicago, at Springfield, Ill., and at the meeting of the National Educational Association. The special report has been used as a text book in various institutions. The unique organization of the work in this State has aroused wide spread interest and led to many inquiries from other states where state organization was contemplated. As the report this year will show, the activity in the State is much more extended in this line than might be supposed. The Normal schools and several private schools are carrying on special work of the highest value which it has been the aim to include, so far as possible in the State report, in order to present a full account of New York State's activity in this new educational movement. Miss Eggleston's work in Teachers' Institutes has been especially successful in arousing a lively interest among teachers, and securing their attention for certain psychological discussions which, when presented from the practical, concrete side offered by Child Study, at once appeal to them, but which have heretofore been presented in vain in an abstract and philosophical way.

I have been consulted several times during the year by those interested in Child Study in other States in regard to the organization of the work in New York State. The desire has often been expressed to follow the plan developed here, but it has been impossible to do so, because the organization of the State Department in no other State seems at present to permit of the adoption of the New York plan. In this connection the statement of Miss Wiltse in the Pedagogical Seminary (see page 883) is at least timely.

That the work undertaken by this division has justified itself in the eyes of the public is most manifest in the widespread and uniformly favorable comment by the press. It has seemed desirable to present the following taken from a large number of references.

[Chronicle, San Francisco, Cal., June 9, 1895.]

The proper study of mankind is not only man, but the child who is the father, or mother, of the man. None of us know, unless as the result of long, careful and patient study, how much or how little a child knows, but this we may say with certainty that children know a great deal more than we suspect. Under such conditions, which are undeniable, it is certainly the part of reason to study the child, and not to try to make a lawyer out of a natural born mathematician or a doctor out of a child whose strong natural bent is toward mechanics. New York is wise in insisting upon a systematic study of children.

[Courier, Buffalo, N. Y., November 24, 1895.]

On page 5 of this morning's issue of the Courier will be found an interesting account of the recent work done by the Division of Child Study of the State Department of Public Instruction. This work, which has been in charge of Prof. Charles H. Thurber and Miss Anna K. Eggleston, of this city, is one of the most important branches of the educational department of the State. The plan upon which the study in question is based is a very simple one, and one which necessarily is productive of important results. What has been learned so far by its application is of a more or less unsatisfactory character, that is, it is as yet in an indefinite form. The results obtained, however, are highly interesting in that they foreshadow the development of a true science of pedagogy.

[New York Commercial Advertiser, July 15, 1896.]

Aside from the scientific value of this experiment it is profitable for parents and teachers to go to school to the children. The old idea of education was comprised in putting the child to study. Now educators study the child. It stands to reason that the new method will be more fertile of good results than the old, because it is more intelligent. It takes into account the child's whole nature, regarding him not as a fractional part of the huge machine called the public school system, but as an individual with an individual claim on the wisdom and discretion of his educators. There has been much government of children in the past on the part of parents, teachers and guardians. The little wards of the family and State have been considered the lawful prey of well-meaning and affectionate adults to whom the word discipline was as music in their ears. The small boys and girls have been brought up and "yanked" up and spanked up, but not always guided up. For with the best intentions towards their charges, guardians of children have not always understood child nature, and discipline without understanding is futile. Blind affection, which does not comprehend the nature and needs of its object, often causes more harm than good.

Parents should cooperate with teachers in the study of children that both classes of educators may be able to minister with more wisdom to the moral and mental needs of childhood.

[The Herald, Montreal, Canada, July 17, 1896.]

The publication of the report will be watched with interest by those who are interested in this very important subject; for, aside from the scientific value of this experiment, it will place valuable information at the general disposal of both parents and teachers and educationists in general. The professor's idea in entering upon this experiment was that he could prove that it would be very profitable if the educators would study the child as well as to force the child to study. That he has demonstrated the correctness of his view he expresses himself as being fully satisfied; and we have little doubt that his report, when read and studied, will justify the satisfaction he feels.

[Post-Express, Rochester, N. Y., July 17, 1896.]

In another department the Post-Express has briefly referred to the results of the elaborate child study undertaken a year ago by the New York State Department of Public Instruction. The recently published report of Professor Thurber is so interesting that it can not be dismissed with a word. It represents, with a graphic accuracy that is truly fascinating, the development of the child mind; and is its own justification for the recent revolution in educational methods by which those who earnestly wish to help children are not content merely to send them to school, but wish to go to school to them.

[Pedagogical Seminary, Worcester, Mass.—Article by Sarah E. Wiltse.]

The work of Child Study in New York is largely done through the State Department of Public Instruction. Such State adoption of Child Study is unique and gives more force to the annual reports than if they were admitted by courtesy. May the day be close at hand when every State report has its department of Child Study as the Forty-second one of New York has under the superintendence of Hon. Charles R. Skinner.

Mr. Charles H. Thurber, at the close of his Hints on Child Study, document No. 1, unconsciously admits that even school teachers are but children of a larger growth, for he says that the names of teachers in the State who are helping in this work will be published as an honor list in the annual report. Mr. Thurber followed a study of children's fears and superstitions by one of their hopes. This latter paper makes a very interesting official document, and shows the age at which the various occupations appeal most strongly to childhood; for instance, after nine, the number of boys who want to be soldiers rapidly increases; at twelve and thirteen the millinery business springs into great prominence with girls. Superintendent Skinner reviews this study in his report, summing up its value in the following terse way: This study of children may result in bringing to teachers a more practical knowledge of psychology, and later on, when we have passed the elementary stages of this work, there will doubtless come that which has undisputed scientific value.

In Division 2 of the report will be found a full statement of the work in Child Study, carried on in normal schools and universities of New York State. These reports contain full syllabi and directions by means of which the same studies can, in many instances, be carried on elsewhere. This fact makes this part of the report of great practical value to the teachers of the State who are interested in Child Study work and wish to undertake some branch of it themselves. It will serve as a storehouse for material for the coming year. The articles by Mr. Smedley and Mr. Eby, in part IV, are also of direct practical availability for teachers. So much material in the way of plans and directions for teachers is found in these two sections of the report that it has not been thought desirable or necessary to add further suggestion for work. Moreover, the plans there presented have been prepared and tested by competent experts and may, therefore, the more safely be followed in further study.

Division 6 of the report contains four original articles on special topics, which are here for the first time published. I wish to acknowledge my debt to the authors of these articles who have kindly placed them at my disposal. Each represents a large amount of special work of high quality undertaken with the specific purpose of serving the needs of teachers. The work was performed

as part of a seminar in Child Study in the University of Chicago. The papers were read before the Illinois Society for Child Study at its meeting in May, 1896, and are published here because the authors have agreed with me in thinking that they would, through this report, reach the largest number of teachers. Mr. Colgrove's article on Valuable Books on Child Study should be read by everyone interested in the subject who is not already familiar with the literature. This article is so comprehensive that I have not deemed it best to add this year a special bibliography. I would call attention, in addition, to the books mentioned by Mr. Colgrove, only to a single publication, namely Studies in Education, by Professor Earl Barnes, of the Leland Stanford Junior University. Mr. Henderson's article on Children's Readings is of great interest to every teacher and will, I trust, stimulate teachers in this State to investigate, each with her own pupils, along the lines of the syllabus used by him. As an illustration of the effect of this investigation on teachers I may mention the fact that in one large school having over 1,000 pupils, the principal was at first very reluctant to have the syllabus used, but after it had been used he read all the papers carefully himself before turning them over to me, and said that had he not promised in advance to give them up he should certainly retain them as he had found them to be of the greatest value.

It has passed far beyond the thought of people acquainted with the movement to consider Child Study as a fad. It may be said rather to have come in general acceptance to stand for the new as opposed to the old in education. The Illinois Society for Child Study held a meeting in May, 1896, which was in many respects the most remarkable educational gathering of the year. The attendance was very large and the program thoroughly practical. It represented, indeed, an ideal of what a two-days' Child Study institute ought to be. At the National Educational Association meeting in July, at Buffalo, the first session of the Child Study section filled the largest church in the city. The next day the large Music Hall, seating 4,000 people, was crowded. A long and successful program had been provided by Professor Earl Barnes, and at the close Professor Bryan, of Indiana, Professor Thurber, of Chicago, and Professor Lucky, of Nebraska, appointed a committee to effect an inter-state organization. The section has grown in three years to be far larger than any other, and draws much hope from the fact that the president of the National Educational Association this year is a man who has not only heard of Child Study but thinks well of it. The demands upon those who have become known in connection with the work from teachers and mothers who wish to connect themselves with this new movement, are increasing continually and frequently press heavily upon those

called to meet them. The organization of the National Council of Mothers, which is to meet in Washington in February, 1897, must be regarded, if not as a direct outgrowth of the Child Study movement, at least as a sister product of the same interest and spirit which is shown in Child Study, and promises to be a great auxiliary in educational work. The Department of Superintendence of the National Educational Association, at its meeting in Indianapolis in February, will, for the first time, have a round table devoted to Child Study. Every possible sign indicates not only a growth of interest in the movement, but also a steady advance in the direction of placing it upon a sound and scientific basis. Like all new movements, it has been to some extent groping in the dark. Many of its adherents have necessarily had more enthusiasm than knowledge; but knowledge is rapidly coming, with further experience and development, so that the most fruitful pedagogical contribution of the nineteenth century may be said to be fairly upon its feet. It still has dangers to meet but it will meet them under wise leadership. The Renaissance of childhood is here.

2. REPORT ON THE WORK IN CHILD STUDY UNDER THE IMMEDIATE SUPERVISION OF THE DEPARTMENT OF PUBLIC INSTRUCTION

By ANNA K. EGGLESTON, Institute Instructor.

Number of papers examined.—Since Prof. Thurber submitted his interesting report upon children's hopes, which may be found in the Forty-second Annual Report of the State Superintendent of Public Instruction, about three thousand papers written by the school children of this State in answer to the questions: What I want to do next year, and why; and What I want to do when I am a man (or woman), and why, have been examined. A few papers have been received from other States.

Children's attitude towards work.—The study of these papers has been made in the light of what has already been said in the previous report regarding the attitude of children's minds towards work at the various stages of their development, and investigation simply confirms the conclusions reached by those who prepared the first records. Nearly all young children regard hand-craft with great favor as it seems to them a means of acquiring power, and of "having fun." Until the ages of 11 and 12 years are reached children look forward with bright anticipation to a time when they may do manual labor. The only exceptions are shown in the choice of professions made by those children who are

influenced more by the worker than the work, as, for example, "I am going to be a lawyer because my father is;" "I am going to doctor because my brother does." The desire to teach often springs from love for the teacher.

Influences which cause children to change their ideas of work.—Interesting facts might be discovered if clear-sighted, careful teachers would study certain phases of the following questions: What influences are most effective in producing this change of attitude towards hand work? Is there anything in the home or school training that directly tends to modify or change the opinions which young children form of work? Is the change helpful to the individual? Is it wise to make an effort to keep alive the interest in manual labor?

It is impossible to read these papers written by school children without realizing how closely work is related to the most vital part of education.

The co-operation of teachers.—All knowledge gained through child study must in the end be used by teachers of children, and they can be trained into the best use of this knowledge by sharing in as great a degree as possible in the work of gathering material. Is it not also true that they, and they alone, must furnish the most valuable elements of this material? It is the mother and the teacher who hear what the child says and sees what he does. The upbuilding of any scientific work on child study is dependent upon the intelligent co-operation of mothers and teachers. If this be granted it is evident that all outlines for study should provide that those who are directly associated with children, not only record and submit papers which state simply events and facts, but that they be led to submit their own opinions and judgments, giving reasons for the conclusions reached. An important work may be done by those versed in psychology if they will examine and correct, or confirm, the results of study made by mothers and teachers. It is here that the university must lend a helping hand in planning and directing lines of study.

Many teachers have manifested their interest in the subject and a willingness to labor in the cause by the letters which they have written to accompany the children's papers. Some of these letters are the records of the doings and sayings of children too young to be in school; others give incidents from the teachers' own childhood, while others are explanations of the children's papers as the teacher interprets them. A few teachers have written upon the back of each paper the prominent characteristics of the pupil who wrote the paper. The following selections illustrate this voluntary, independent work of teachers:

Marguerite, aged 10 months.

"Marguerite's mamma and I were seated in the parlor, mamma at the piano, Marguerite on the floor. Mamma was playing one of the classics in easy waltz time, and Marguerite, delighted, kept time with her chubby hands. All at once mamma struck off into a rollicking air, not thinking of anything particularly, but 'just for fun,' when the little one shook her head and cried with all the indignation of her little being. I said: 'Play the waltz again.' She did, and Marguerite began her graceful little movements with a perfectly happy smile."

Marguerite (the same child), aged 2 years.

"Marguerite had two or three choice bits on her plate at dinner, mamma having put them there. Her brother Harold (9 years old), coming in, suddenly snatched at the plate, taking one. Marguerite set up a determined little scream. I said: 'Harold, ask her politely for one and put that piece back.' 'Oh Marguerite, please give me one,' said he; and she at once handed him the piece."

Illustrating children's idea of time.

Ned, aged three and one-half years, was very anxious to go in the country. The usual reply to his oft-repeated question was "We will go in June, Ned." One morning in May he was heard prowling around the rooms very early; soon he rushed to his mother's bedside and exclaimed, excitedly, "Mamma, can we go in the country to-day?" She answered, "I have told you so many times, Ned, that we shall not go until June." "Yes, but I have been up to the calendar and I've maked it June." He had stripped off all the May leaves one by one and left June 1st standing in bold relief as evidence of the flight of time.

Earl, aged 7 years.

"Earl came to school one morning, barefooted. I called him in from the playground because he quarreled with, and struck a playmate. He sat quietly and in a meditative mood for some minutes, then began to cry softly. He showed me his foot and complained that it hurt him. A small spot scarcely large enough to see was minus the skin. Earl said: 'Luther threw a stone and hurt my foot'—this in explanation of his reason for striking Luther. As, for several reasons, I considered the truthfulness of his story doubtful, he showed me the exact spot on which he stood when Luther threw the stone, also where Luther stood, and the stone (a large cobblestone).

"A few minutes afterward Earl's elder sister came and gave an explanation of the injury which I think was correct. In the morning, before starting for school, Earl was with his mother at the

wood-pile; he committed some misdemeanor, and, not obeying when she told him to stop, she tossed a little stick towards him, which struck his foot, making the wound."

Statements made by teachers concerning their own childhood:

(1) "Recalling my own childhood, among my earliest recollections was the fear I had of God and future punishment, i. e., punishment after death. If I had committed a wrong act I was filled with fear, when at night I said my little prayer for fear I might die before morning, and be burned in fire forever. However, if for some act of misconduct I was about to be whipped I would lie out of it if I could. The fear of immediate bodily suffering being more to be dreaded than a vague, undefined, possible punishment after death.

"I was anxious about the future, and often seriously thought what I would be able to do to support myself when grown. I knew the time would come when my natural protector and supporter would be no more, and I felt a great responsibility on me when very young about my future. I had a great desire to earn money, not so much for present needs as to accumulate for the future. I was ambitious and studious. I think I derive these impulses more from training and my parents' precepts and admonitions, than from any innate, natural causes, unless, perhaps, thoughtfulness was natural for me."

(2) "My plans and hopes when a child have been fulfilled. I went to school when very small, I think about three years old, and I remember as I watched the teacher how I wished that some day I could be a teacher. As I grew older my wish was still the same, and my teachers, knowing my desire, aided me in my efforts for a good education. The last teacher I had was the best of all. When I was sixteen years old I went to the teachers' examination, was successful, and when September came my hopes were satisfied, and I was a teacher. I have just closed my third year of school work."

(3.) "I do not recollect that I had any special thought of being a teacher, though I have been one for eighteen years. But I do distinctly recall the fact that I wished very much to be an authoress. I was always writing books in imagination, and I think, that under different names I was always the heroine of my own novels. I remember even now some of the 'books' I wrote mentally, while picking berries (I was a country girl), sweeping, and doing housework. I even began one or two stories for children, but never finished these books. I have written a few short stories, and read them to my pupils. Have written a few religious poems, three of which were published. I have written a devotional book for each

day of the month, for which I have not yet found a publisher. These, with a few newspaper articles, have been all that grew out of my childish dreams of greatness and wealth through authorship.

* * * * I still have the old child habit of mentally making addresses in public religious meetings, holding conversations with distant friends, and once in a while I find myself composing, as of old, some little novelette in which I am still the heroine."

Specimens of children's papers, with teachers' comments :

Boy, aged 12 years.

"When I am a man I want to be a merchant and sell goods to people and get my pay before they leave the store so that there won't be any trouble."

Comment: "Father has been a merchant. Now farmer. Good education. Close manager."

Girl, aged 13 years.

"When I am a woman I would like to be an artist, and paint beautiful landscape pictures. I would like to visit Holland and Switzerland, and paint some of the beautiful scenery. I would also like to be able to paint people's pictures and draw the pictures of animals."

Comment: "Father, farmer. Bright girl, quick to see, well-balanced. Great fondness for drawing."

Boy, aged 15 years.

"I callate to go to work in the round house at H—— and work my way up as my uncle has to be a fireman and then to a engin-eearer and then to a condoctor."

Comment: "Slow, sure, reliable, accurate in everything but spelling."

Girl, aged 12 years.

"I would like to be a school teacher and earn money for myself so that I may have all the clothes that I want. I would like to have scholars that would mind me, be good and not be saucy. I don't want to be cruel to them or ugly but teach them to be good and love me."

Comment: "Father a mason, cruel and has a bad temper; not educated. Mother a common sort of woman. Child takes to books readily."

Boy, aged 14 years.

"When I am a man I want to be a ball player, and pitch and catch and knock balls. Go to New York city and play in the league

and be first baser. In the winter I want to go south and eat oranges and bannanas."

Comment: "Does not like to work hard. Good in his books, however."

Importance of keeping children ignorant of the fact that they are being studied.—It has been difficult to impress sufficiently upon teachers the importance of keeping the children in absolute ignorance of the fact that they are being studied. Some children have written, knowing that their papers were to be sent to the State Department of Public Instruction. This knowledge defeats the purpose of the plan, as the children's papers plainly show. Some teachers told the children the destination of the papers after they were sent—a piece of information not at all good for children, and which prevents any future work with those who have this knowledge. As long as children write to make a good showing for themselves, or to please another, what they write is valueless for the purposes of child-study.

One teacher says: "The papers are not forwarded without the pupil's knowledge, as I could not conscientiously deceive my pupils so. They were written in perfect ignorance of their use, and after they were written I told the children, and freely obtained their consent to send them."

There is much to admire in this consideration of the sacred rights of childhood. Too few men and women hesitate to publish far and near the little secrets dear to childish hearts. Yet it is questionable whether the pupils from this school can ever again write papers which are wholly devoid of self-consciousness.

Other obstacles which prevent the collecting of satisfactory material.—Another obstacle is met in those teachers who do not wish the thoughts of their pupils to appear unless clothed in good English and perfect spelling. Many schools have withheld papers which the children have written for fear that they might bring reproach upon the teaching in the school. Others have sent the papers, with an apology accompanying them for the poor composition work in their schools. It is extremely difficult to make it clear that the thoughts of children are desired, and not an evidence of what they can do.

The test of school work has been made so long by means of mechanical forms that it is not strange that many teachers can not comprehend that it is content and not form that is wanted in child-study. The familiar question is "What can the children do?" but "What are the children?" is still a strange and unfamiliar one.

Sometimes it is evident that the children have thought more of the "language lesson" than of their wishes. The following paper by a boy seven years old illustrates this point:

- "I want to work."
- "I want to know how to make iron."
- "I want to know how to make engine."
- "I would like to know how."
- "I think it is a nice thing."
- "I want to be a engineer."
- "It is a nice thing to do."
- "I want to use a gun."
- "It is a nice thing."
- "It is fun to shoot guns."
- "I see a gun every day."
- "I wish I had a gun."
- "I shot a gun but it
- "Didn't make any noise."
- "I want to go to Telihasa."
- "I want to go to see their schools."
- "It is to Florida."
- "I want to farming."
- "I want to now."

This is but one of many papers which show the strong hold that the systematic language lessons have upon pupils.

In some instances it is clearly evident that papers of uniform size have been used for the first time, and that has proved to be a restraint. That the advice to use the usual kind of paper for composition work has not been heeded is shown in many cases. It is quite easy to detect from the way in which children express their thoughts whether the conditions are natural or not. However, it is a pleasure to report that the majority of papers were prepared under the best conditions.

The effect of environment.—One of the most interesting features of this study is the manifest influence of environment. One has but to think of the characteristics peculiar to the various parts of this State to realize that the personal characteristics of the inhabitants widely differ. A profitable study may be made by tracing the effects of natural scenery, kinds of labor, and the social life of the people, as found in the children's expressions of their wishes and hopes for the future.

The wilds of the Adirondack region have created desires which the children express as follows:

Boy, aged 12 years.

"I want to be a hunter and live in the woods and catch bear catamount and deer."

Boy, aged 12 years.

"I would like to be a forester. I would hunt deer and bear and have a pair of kids and a span of horses."

Boy, aged 10 years.

"I want to be a guide and take the city people fishing and hunting. I am afraid I shall get them lost though."

Boy, aged 10 years.

"When I am a man I want to be a guide and go out in the woods with city people. I think I shall take a gun so that if I see a bear or anything coming after me I can shoot him. If I haven't a gun I shall climb or jump into a tree so that he cannot catch me."

Teacher's comment: "This boy is lame, yet that seems no obstacle."

Boy, aged 11 years.

"I would like to be a guide in the Adirondacks when I am a man and take parties all through the woods and hunt and go fishing with the parties. I'd have a good time that's why I'd like to guide."

Boy, aged 12 years.

"What I would like to be when I am a man is a guide in the Adirondacks. Because I could get some money and a lots of presents."

Teacher's comment: "This boy's father is a musician."

Boy, aged 13 years.

"I would like to be a guide to take the city people through the woods, catch fish, shoot deer and patridges and set traps for bear, mink and muskrat. But when I see a bear or a deer coming I think I shall hide behind a tree or something to get out of the way if I haven't a gun with me."

Girl, aged 13 years.

"What I would like to do when I am a woman and why? I would like to wash in a hotel and wait on table in the big diningroom and why. I would like the pleasure. We have lots of fun and get good pay."

Teacher's comment: "Father, laborer; mother does washing."

Girl, aged 14 years.

"I would like to do work in a hotel and do londery work. & why I would like to do that kind of work, they have lots of fun & get good pay."

Teacher's comment: "Parents, American; father farmer and jobber."

Boy, aged 12 years.

"I would like to work on the river if they have not men enough. The reason I would like to work there, because they get high pay."

Teacher's comment: "Working on the river is a local expression which means floating logs and pulp-wood down to the mills below us."

It is to be regretted that the nationality and occupations of all these mountain children's parents were not given. While their papers show the influence of the country in which they live it would be interesting to know how much the special vocation of parents have affected children's thoughts. In the examples given it will be seen that neither music, farming, nor mill-work have proved sufficiently attractive to the boys to overcome their desire for out-door life. The hotel, with its excitement and gaiety, and "good pay," attracts the girls.

A large part of this child study material has come from schools in farming districts. Farm labor is not only regarded with favor, but the children write with evident delight of the pleasure which they expect to have in following this vocation. For instance, one boy, 13 years old, says: "I shall live in the country. I want to work a farm and be a good honest farmer. I want to do it because I like the country and because the country air is much better than the city air. I like to do farming work." A child eight years old says: "I would like to be a farmer and work in the fields" while others say it would be fun to plant potatoes, mow hay, and plow. It is apparent that a boy 11 years old, writing at such length as in the following paper, and describing his farm in such detail, finds more pleasure in his subject than in the ordinary composition topic.

"I want to be a good man, and earn lots of money, and have lots of clothes, and save money until I get about \$1,000, then I want to get married and buy me a farm and horses, cows and sheep. I want my farm to contain about 200 acres I want to have 5 horses and 10 cows, 3 barns 1 granary a large chicken coop with about 200 chickens of most every kind. Then I want to have a pigpen with white pigs and black pigs. Then I want my house to be very large and white with 20 rooms. Then I want 16 sheep and about 7 calves then I will keep the calves and sheep together. Then I will make lots of money get rich and not work."

Another paper, though not so elaborate, shows the practical interest which many children have in farm life: "I want to be a farmer. I want to have cattle, horses, hens and lots of stock. I want to have a good level farm of about 100 A. I want to have a sapbush so as to have syrup and sugar to sell. I want a mowing machine hay rake and scythe. I would like a good team and a yoke of oxen."

The principal of one school writes: "It may be of interest to the committee examining the papers to know, in explanation of the desires to be wealthy, or to marry heiresses, expressed by some pupils that K—— is a fashionable summer resort, many wealthy New York people owning residences here, and that shortly before the papers were written the marriage of Miss Vanderbilt to the Duke of Marlborough occurred. The wedding party spent part of the honeymoon here and the children heard much of the desirability of wealth. The sporting tendency is in part accounted for by the fact that Capt. Haff of the Defender is a native and resident of K——, and the children have been intensely interested in the international contest."

It would be impossible to have papers which more clearly illustrate the effects of social environment than those from the K—— school. Fully two-thirds of the boys express a wish to marry, and a desire for vast wealth. The following selections are fair examples:

Boy, aged 9 years.

"When I am a man I expect to be a carpenter because a carpenter's trade you earn more money. I will be rich I will have a horse to ride it around like a prince I expect to marry a rich lady like Miss Vanderbilt and I will be the richest paper going. I will give a half a dollar I will have about thirty slaves working for me So I will not have to do anything. I will be as rich a man as there is in the world I will be wealthy."

Boy, aged 12 years.

"When I am a man I want to be an artist. I want to get married to a very nice young lady. I want my wife to be an artist. I am going to an art school which is called a college. I want to marry a Duchess and I want to be an artist, because I want to earn some money to make a living."

Boy, aged 16 years.

"In the first place I want to get plenty of money; but in order to do that I must work; the practice of law I take as my work, and if

I am successful I may get money enough to hand down to my sons and daughters if I have any. In short, I want to chase the almighty coin (secondarily)."

Boy, aged 11 years.

"I want to be a druggist when I am a man. Because I can make money and after a while change my position to a millionaire. When I become a millionaire I will get some other smart druggist and have a large drug store in the city of New York. I will help the poor and have anything I or my wife or children want. When my children get married I will make them each a present of five million dollars so that they can enjoy life with me and my wife."

It is worthy of note that less than ten girls mention marriage, and then only incidentally, while school teaching, the teaching of music, painting, millinery, dressmaking and housekeeping are chosen as means for gaining a livelihood. Four girls wish to travel, and many aspire to a college education.

Various employments have appealed to boys in this school with such force that their interest centers in the work rather than in the things to be derived through the work. The boys whose ambitions are stirred with the affairs at sea lose sight of wealth and marriage which have filled the minds of so many of their comrades, and write simply of life upon the water. A boy 11 years old says: "When I am a man I want to be a captain of a ship. The kind of a ship I would like to work on is a large passenger ship. I would like to go on a sail boat better than a steamship." Another boy of 13 writes: "I want to try to build a towboat and tow boats out of the creek when they are fast, and I will have some money and build a house of my own when I am a man." One of 11 writes: "I want to build boats and have railways on which to haul them out and to know how to draw plans. I want to have a horse and wagon and a wheel so I can go out riding every evening. I want to go all over the world and see the beautiful things in the world." (Father is a shipbuilder.) Another boy from the same class writes: "When I get to be a man I want to be a sailor not a deep sea one, but to run about only in the bay. The reason why I want to be a sailor is because I love water and I love to sail in sailboats and in streams. I like to take parties out fishing and gunning for all day, especially a musical party."

Effects of school life in forming children's hopes and wishes.—If no other good is derived from this gathering of child-study material than that which may come to teachers who thoughtfully read the reasons which children assign for wishing to become teachers, no one can justly deplore the time and thought expended upon the study of children. The teaching force would become wiser on a vast number of topics if it would only be silent for a time

and let the pupils talk. At present there is a growing suspicion that children can say good things, things oftentimes very much to the point. A large number of pupils wish to teach school, and have told why. Though teachers could doubtless find the immediate influence which has affected their pupils, a reader who does not know the school can only infer the causes. No other work is so often chosen because of admiration for the worker as that of teaching. Statements like the following are found in many papers, which suggest admiration for the many acts that make up the daily routine of school life, and are performed by teachers, unmindful of their effect. "I would like to be a school teacher. I think it would be lots of fun to write on the blackboard every time you turned around. When I play school I like to hear corrections and give out the lessons and many other things. I like to draw maps and pictures on the board."

Girl, aged 10 years.

"I would like to be a school teacher and be kind to others and help little girls and boys, and do their sums and tell them their words."

Girl, aged 12 years.

"I want to be a school teacher, because if the children don't mind I can punish them with a ruler."

Girl, aged 11 years.

"I want to be a teacher, because a teacher can have a good time in school, and when the children don't mind I can whip them, but I won't whip them till I blister their hands. One time when I was about five years old, I was late one noon, two other girls and myself. The teacher whipped us awfully hard and made us stand in a corner all the afternoon. One day I went away from school and didn't go back, I was so afraid that the teacher would whip me that I made papa go to school with me."

Girl, aged 11 years.

"I want to be a school teacher so that I can punish the children when they don't mind me, and so that I can have balls, pins and watchchains in my desk."

In a few instances teachers have read the papers written by their pupils, and have noted the effect which special studies have had in creating desires, especially the desire to travel. One writes: "I have observed that children largely aspire to that for which the teacher and others give them the impulse. The pupils who wrote they wanted to visit the tomb of Washington and the Museum of

Art in New York to see the statue of Napoleon, reflected back to me the effect of my own teaching and the interest I had awakened in the great men."

The study of history is plainly responsible for the wishes which boys have to be soldiers, and the interesting descriptions given in geography classes have filled the imagination with such pictures of different parts of the world that it is easy to understand why so many pupils long to travel.

Boy, aged 14 years.

"I would like to be a soldier and tramp through the woods, hear the cannon roar, and see the men fall. When one of the other army came I'd shoot his heels to see him run. I'd shoot the first one that came to steal anything from my army, and keep his horse for myself. If we went to some other land I'd steal chickens, pigs and cows for our army."

Boy, aged 10 years.

"I want to be a brave soldier, because I am so strong. I want to be a soldier as brave George Washington. He was pleasant and cheerful and strong. My grandpa was a strong man. Mr. Saxton was and another man were the head ones of the army."

Concerning travel pupils have said :

"I would like to go traveling all over the world, to Italy, France, Spain and all the countries of Europe. I would like to see all the fine palaces in Paris."

"I would like to be a millionaire so that you travel round and visit the noted cities, and travel on the Rhine, go to Italy and visit the city of Rome where the grand cathedral, St. Peter's, visit the residence of the Pope called the Vatican and see the magnificent ruins. Go to France visit the city of Paris the gayest and most attractive city in the world. I would like to go to Scotland and visit the grate city of Edinburg."

"I would like to travel to Europe, South America and Asia."

"I would like to travel in Europe and see the beautiful things there. I would like to see the ruins of Pompeii and Herculaneum, the Vatican and the beautiful cathedrals. I would like to go to Paris and see the fashions and gayety. I would like to go to Asia and see the queer sights of some of the countries we have studied about."

There are many papers showing the desire which children have to travel in their own country.

Different interpretations of the question "What I want to do When I am a Man (or Woman), and Why."—The student of psychology could make some very interesting deductions from the

children's papers showing how different minds have interpreted the question. In some instances there is evidence that it is the teacher who construed the meaning for her pupils. Such surely must have been the case when an entire class looked upon the question in the same light. For example, a set of papers from one school shows that every pupil understood the question to imply a removal of all restraint, and even changed the wording to conform with their interpretation of it, as,

Boy : " ' What I would do if I had my way.' If I had my own way I would smoke and drink. I would swear and curse God's name. And I would run away from my mother. And would not care for my mother. I wouldn't close the door. I would slam the door shut."

Girl : " ' What I would do if I had my way.' If I had my own way I would go to church and I would be good, not laugh and sit still, and I would go to my aunt's and uncle's and cousin's and play with them, and I wouldn't quarrel and I would be good to them."

Boy : " If I had my own way I would smoke and swear and I would do everything that my father and mother would not let me, and I thank them for it and I am glad they will not let me have my own way."

Girl : " If I had my own way I would run all around and not sit down a minute, and be running all the while I wouldn't be still. I wouldn't want to be running all the while. I wouldn't want to be sitting still all the while I would get tired. Sitting still would make anyone tired. So you would want to get out. I'd like to get out and not be sitting still and play around."

Boy : " ' What I would do if I had my way.' I would buy me a pony and ride all over the country. I would let my little dog Gipsy follow me, he likes to follow me. I would have birds, dog, rabbits, insects for pets."

A teacher who put the question in its original form writes : " The children often lost sight of the subject ' What I want to do,' and thought only of ' What I want.' "

Sometimes the pupils word the question in this way : " What I expect to do when I am a man." At the same time they write with perfect confidence in the fulfilment of their expectations, as : " I expect to hire out to a farmer or a storekeeper. I expect to become a farmer or a storekeeper."

Another writes : " What I am going to do when I am a man," and says : " I'm going to be a batchlor and live by the sea In a very small dwelling just large enough for me."

A girl who states the question " What I hope to do," changes to the form of a wish, and writes : " I would like to be a missionary, if that was what my life was intended for."

Many use the question "What I would like to be," and in their flights of fancy it is easy to detect that they possess no hope of attaining their wishes. One girl recognizes the attitude of her own mind when she writes: "I would like to be a great singer (of course I know I can't), and travel around like Addelina Patty and go to Europe. I would like to get five thousand dollars a night. Then I would erect an orphan asylum for the poor children. I would like to have a monkey and a parrot and all kinds of animals.

"Because I love music.

"Because I want to help the poor.

"Because I love animals."

The following is clearly an expression of hope for the future: "I hope when I am a man I will not have to tell anybody my thoughts."

It would be most interesting to make a careful analysis of the expressions found in these papers on children's hopes to determine how many of them should be classified under the heads of hopes, if one held closely to the definition of the word. Wishes are so nearly related to hopes, yet there is a fine distinction, which Wordsworth has made clear in his little poem, "The Wishing Gate." A practical knowledge of the workings of children's minds might be gained if teachers would make the study by answering such questions as: What does this child mean by his words? Has he expressed a wish which leads simply into the realm of fancy, or is it a hope which he expects to realize? What are the influences which have created these wishes and hopes? How may this desire be used to heighten his interest in work?

The following extract from a teacher's letter, which accompanied her pupils' papers, is an excellent illustration of this kind of study:

"When pupils expressed a desire to get money by working, thus showing ambition, when further questioned, would frankly acknowledge that if sufficient money were given to them they would not want to work for it, thus showing that necessity and pride were the prime motives governing their ambitious impulses."

"Children's Hopes" ought not to be cast aside for a new topic. Teachers are just beginning to see some of the meanings that it has, and it must naturally lead into other lines which the teachers themselves will discover. One great value of this study of children is to make students of those who teach them, and that purpose can not be accomplished unless thoroughness be a prominent feature of all that is done. As far as its connection with teachers is concerned, only introductory work has been done. The next step is to get teachers to investigate and really make a study of children's hopes, submitting the results of their labor to some one capable of leading them on. Teachers have shown that they are ready for such leadership by the appeals they have made for guidance. One school commissioner has 150 teachers in his district, who have asked for plans

for further study of children. The teachers of a few union schools have expressed a desire to organize for study if outlines are furnished to them. The value of any topic which is a means of getting children to think is recognized by teachers. Heretofore empty forms have too often prevailed, rather than that composition work which is based upon thought, but in these papers children have frequently written as if it were the first time they had ever been allowed perfect liberty with a question, and, freed from the restrictions of complete statements and technical forms, thought predominates as they tell of their hopes and wishes. The close connection of this theme to the regular school work is in its favor.

Sometimes certain sentiments are found to have pervaded an entire school. One set of papers were filled with ideas of truth, honor and goodness. Each child had written "Honor Bright" upon his paper. In some schools the pupils express a desire to work for others; care for the sick, the poor and aged. Some girls wish to become trained nurses, and other missionaries. Side by side with these wishes and hopes came those from other schools where vocations were chosen, because, as the children write, "you can get some money." The effects of camp meetings and Christian Endeavor societies are seemingly easy to trace. The country fair and the circus are not without their influence.

As soon as these papers were read a letter was written to the teacher, asking her to give reasons, as far as possible, for the children's statements. The purpose of this correspondence was to confirm or modify any opinion which the examiner of the papers had formed, and also to awaken a spirit of investigation on the part of the teacher. The teacher whose pupils' papers were marked "Honor Bright" was asked the significance of these words to the children. She was also questioned regarding her method of moral instruction. Another teacher was asked to tell why a certain boy had written so much about a gun, and had made a drawing of one at the top of his paper. In answering these questions many teachers have shown not only an interest in, but also an ability to do valuable work in child study.

So far as it has been possible to keep the record, the following persons have greatly aided in the work by forwarding papers and answering questions submitted to them: Isabella G. Mitchell, Cazenovia; Mary McDonald, Pt. Henry; Katherine P. Cody, New Lebanon; Annie E. Acker, Craryville; M. I. Hunt, Islip; Cora E. Crowell, Centerville; Grace B. Dowling, Glens Falls; Dr. James S. Cooley, Glen Cove; (Miss) B. F. Taylor, Keeseville; Mary Budd, Billings; Mrs. Jennie Ritter, Plessis; Emily A. Hayward, Montrose, Ill.; W. Almond Andrews, Lake Placid; Elizabeth Wayman, Lockport; Ida B. Buck, North Cohocton; Hattie Edgecomb, Binghamton; Emmet B. Kibbe, Union Valley; Georgiana Fulton, Mountainville;

Edna Godard, Mayville; Katherine Smith, Albany; Minnie E. Latimer, Old Chatham; Minnie I. Cooper, Wilmington; Eva M. Sherman, Kinderhook; Stanton D. Austin, Copenhagen; Ruth A. Perry, Scott; Carrie E. Palmer, Geneseo; Lucy Williams, Machias; Margaret E. Blacklock, Bowmansville; Benjamin Tremper, Rhinebeck; Harriet E. Watkins, Charlton; W. N. S. Hanks, Athol; Nellie F. Ford, Wilna; Mary C. Terwilliger, Gardnertown; Hallie B. Card, Mendon Center; and M. T. Van Alen, Heath.

8. REPORTS ON CHILD STUDY IN THE NEW YORK STATE NORMAL AND TRAINING SCHOOLS

STATE NORMAL COLLEGE, ALBANY

Sir.—In reply to your inquiry regarding the attention that is paid to child study in our institution, I desire to say that one period a day for 20 weeks of the year is given by the pupil teachers under the direction of the professor of psychology to the consideration of Dr. G. Stanley Hall's Syllabi for Child Study. Answers to questions in several of these syllabi are written by each one from his own experience and observation.

Many of the students are also filling out blanks giving observations like those given below as they have opportunity to observe children. They do not question the children, but write an accurate description of any quality, action, or saying of the child which they observe. The object of this work is to form in the teachers habits of sympathetic study and close observation of children, thus making it possible for them to acquire a better understanding of what they have to work with in children's minds.

BUFFALO NORMAL SCHOOL

At the beginning of the school year the young teachers who compose the graduating class are assigned to the various grade rooms for work in teaching. Before the teaching work begins a week is spent in the observation of the children. The first few days the student teachers are asked to interest themselves in all the pupils, noting the action and expression of the children in a general way and discerning same with critic. The object being to turn the attention of these teachers to child-life as it expresses itself through these agencies.

Later the student teachers narrow their observations to one or two pupils according to their inclination, and write out their reasons for particular interest in the ones chosen, and pass some

judgment on the manner in which such a child or children should be treated.

At the conclusion of their work in the grade, their judgment is passed again on the same pupils, which in many instances is different from the first study.

This individual study of children is directed along the lines of the physical, emotional, mental and volitional development, thus considering carefully the effect of temperament and environment upon child development.

During the year a number of tests have been made along various lines, as follows:

1. Test comparing weight and height of boys and girls of same grade.

Result.—Showed that girls are taller and weigh more than boys at same age.

2. Test ability to distinguish color.

3. Test time of greater fatigue.

Example.—Pupils bisected lines at beginning of day and latter part of day. Result. Better results beginning of day, and boys surer than girls.

4. Test the judging of distances.

Result.—Boys more accurate than girls.

5. Tested with primary children, their preference for pictures colored and those not.

Result.—Preferred colored pictures.

6. Tested with primary children, their preference for pictures of real people and those of fictitious people.

Result.—Chose pictures of real people.

7. Tested comparative interest of children in the science lessons and literature pertaining to it.

Results not decided enough either way to make positive statement.

8. Tested choice between fairy and history stories.

9. Tested the books they liked best in their general reading.

10. Tested to find out number of pupils that were ear-minded and those that were eye-minded.

Results about even.

11. Made a study of children's interest in games.

12. Made a study of hopes of children.

13. Made a study of choice of occupation.

14. Made a study of children's imagination under following heads:

1. Physical condition.

2. Mental characteristics.

3. Kind of literature given to the child.
4. Kind of stories he likes.
5. His favorite occupation.
6. Is he given to romancing?
7. Read a simple story to him, and have him reproduce at once, in writing, if possible. Are his statements exact?
8. Have children reproduce again after several days.
9. Have child give description of what he sees on his way to school or from school.
10. When cross-questioned does he try to cover up a lie, or does he unsuspectingly contradict himself?
11. Can he easily originate stories?
12. Does he picture vividly the undescribed details of a story?
13. Which is his favorite study in school?

Under seven we made the tests with the following lessons:

1. Nature lesson, Woodpecker. Myth lesson, Origin of the Woodpecker. (Cook's Nature Myth.)
2. Nature lesson, Robin. Myth lesson, Indian Story of the Robin. (Cook's Nature Myth.)
3. Nature lesson, Cat. Myth lesson, One of H. H. Jackson's Cat Stories.
4. Nature lesson, Starfish. Myth lesson, Legend of the Starfish. (Chapman.)
5. Nature lesson, Calla. Myth lesson, Baby Calla. (Willie's Morning Talks.)
6. Nature lesson, Pussy Willow. Myth lesson, Pussy Willow and the Robin. (Pratt.)

CORTLAND NORMAL SCHOOL

During the last few years, many of the children in the primary department of our school of practice have been examined as to defective eyesight and hearing; in that time several of these children have been found to have very defective eyesight, a fact entirely unknown to their parents. In each case the parents have been notified and in each case the children have been taken to an oculist and have had glasses fitted.

We have found four cases of adenoid growth which necessitated a surgical operation, and the operations have been performed. Several cases of defective hearing have been found, those caused by adenoid growth or enlarged tonsils have been cured by slight surgical operations. Deafness in one or both ears is sometimes caused by accumulation of wax; in all cases the deaf children have been seated nearer the teacher. We have not examined all of the children, but have given attention to those who have been found troublesome or inattentive in classes; in almost every case these

have been found to be defective in hearing or eyesight. When these defects have been remedied, the troublesome or inattentive children have become orderly and attentive.

The examination of the eyes has been made with the Snellen's test card, or with a card which we obtained from Queen & Co., Philadelphia. The tests for hearing were made with a watch and by pronouncing words and sentences to a class.

We have found some of the children to be decidedly eye-minded, and others to be decidedly ear-minded, and have endeavored to so shape our work that each child may have an equal chance with every other child, and may be developed along the lines in which he is lacking. We have often noticed nervousness and twitching of facial muscles in children, which, upon investigation, have been found to be due to coffee drinking.

Special attention has been given to the hygiene of writing. No slates are used in the department because the average slate pencil is so small as to cause a cramped position of the fingers, because of the uncleanly habits induced by the use of slates, and because we are convinced that the use of paper and pencils and ink is better for the eyesight. In all of the writing on paper the children in the first grade are required to make the small o, i, etc., about a half-inch in height and the other letters in proportion, in order that the children may not be required to use the accessory muscles before they are developed. For this same reason, our beginning classes do as much work as possible on the blackboards. The use of double ruled paper has been abolished, and the children now use singled ruled paper, as we wish their attention called to the formation of letters, which can be done much better when the attention is not given to the fitting of letters into a given space. Much attention is given to hygienic position of children during writing. They are taught to take such positions as will not raise one shoulder or cause distorted spine.

In the reading and language classes, effort is made to correct defective speech of children by teaching them in what position to hold the lips and tongue in order to articulate distinctly. Much of the defective articulation in children of school age is owing to the fact that they have been encouraged at home in "baby talk," and it can be easily cured.

Lessons in morals are given; not by calling the attention of the children to immoral things, or by reading and telling them of the things they should not do, but by holding up to their view deeds of moral, as well as of physical, courage, and by teaching them to look for good things, as we find what we look for in this world. Children are strongly imitative, therefore we do not tell them stories of bad children and their naughty deeds. It has been noticed frequently that the terribleness of the punishment which overtakes the

naughty boys in stories is too often an incentive to the average boy to incur the risk of the same punishment.

We try to teach patriotism and to train the children for intelligent citizenship by instructing them to take good care of their school grounds, as the care of that part of the country nearest them is their duty now, and if they are faithful in little things now, they will be faithful in great things bye-and-bye — (as a result of this training, it is not an unusual thing for the children to ask that they may be allowed to pick up the papers which have been thrown on the school grounds), by teaching them to love their flag, to recognize its beauty and to salute it every morning; by teaching them patriotic songs and poems; by reading to or telling them stories of great Americans; and by teaching them obedience to and respect for those in authority.

We are now working along the line of story-telling—the stories to embrace Nature stories, fairy stories, myths and fables, stories of adventure, patriotism, et cetera, with a view of finding out which class of stories children of different ages prefer, also which parts of the different science subjects appeal most strongly to them. We also hope to accomplish by this work (as the children are required to retell these stories) fluency of language, and the power of expressing themselves without embarrassment, as well as the promotion of their mental and moral growth.

We try to have our teachers in training study the individual child in their classes, “to consider a class of 25 children, not as one twenty-five, but as twenty-five ones.” This brings the teacher into closer and more cordial relations with the children and gives her a sympathy and understanding with the children which she can not get in any other way. The value of this study for our school is shown in the number of children who are discovered by these teachers to have defective physical organizations. During the eight weeks of this present term, four cases of defective eyesight and one case of defective hearing have been discovered and reported to us by our teachers in training.

We also teach them to know the early symptoms of diseases incident to childhood, as prompt action on the part of the teacher at this time may avert very serious consequences. In short, our aim is to train our students to care for the individual child, mentally, morally and physically.

Mrs. Mary Eastman, principal of our primary department, and Professor Darwin L. Bardwell, our instructor in science, have both of them given a large number of lectures on the subject of child study, along the lines indicated in this report, in teachers' institutes and other educational gatherings. The principal of the school, also, in public addresses has taken occasion to encourage

child study on the part of the teachers of the State whenever he has found opportunity.

FREDONIA NORMAL SCHOOL

We have made no systematic experiment in child study in this school the past year and the only laboratory work in this connection has been measurements taken in the gymnasium. We have made careful observations and from the results report the following:

1. Observation on kindergarten children placed under the guidance of a teacher morally strong, then under another morally weak, showed a very great difference, not only in respect to the regard paid to the teachers, but generally the child's thoughtfulness and respectful conduct with reference to others.

2. Observations in the kindergarten of the effect of story, song and play, respectively, upon the child revealed the fact of great difference in interest. Take the wind, for example. Talks of the wind only partially interested them, a song of the wind moved them decidedly more, but when the children became trees, swayed by the wind, the attention of every one was complete.

3. Observations on the same children reveal a great difference between the effect of a command and a request; the same children antagonized a command, while they would give quick response to a request, and this in the earliest revelations of child nature in the kindergarten.

4. The sense of justice is revealed in the children in the kindergarten. A child had hurt others while going home from school; the next day it was detained until the other children had nearly time to reach home; it remained without a murmur, detained by its own sense of justice.

5. Observations on a child less than four years old revealed a strong sense of personal identity. The teacher, seeing the child out in the cold, felt of her hand and told her she was cold and must come into the house; she said she was not cold, and asked why the teacher said she was. When the teacher answered that she felt her hand cold, the child said, "You are not me. If I should pinch me, you would not feel it."

6. How early do children reveal a sense of perspective? A child of five was trying to draw a picture of her little wagon and after many attempts and failures, she asked one of her teachers how she could put the four wheels on.

7. Do children really draw from objects or from the notions which the objects placed before them suggest? (a) A cucumber, with one end bent around like a summer squash, was placed before a class of seven kindergarten children to draw; and one drew it with the

crook, all the others made it straight. (b) When apples are placed before children to draw, they always put on a stem, even if there is none, and make a depression opposite, even if this part is not in sight. (c) A pear was placed before a class to draw with no pear-like depression, but decidedly rounded toward the stem end; a very large proportion of the drawings were decidedly pear-shaped.

ONEONTA NORMAL SCHOOL

The work of child study in our normal school has been a continued development, a gradual growth. Our efforts at the outset were largely tentative and directed only along the line of study of infant psychology as a means to illustrate and complement experimental psychology. Our next step was to require all candidates for graduation to present a thesis on the results of study of some one trait of a particular child found in the classes of the training school. The methods employed in this phase of child study were presented through lectures, and definite directions were given as to how a child should be studied and observations recorded. The choice of subject was left entirely to the observing teacher. The next plan was to embody both of the preceding plans with this change. Rather than have individual teachers study individual traits of a given child, our graduating class was formed into groups, each group studying one subject on different individuals throughout the grades and all submitting results in their theses. All these results were tabulated and discussed by the class and conclusions reached. At this stage of the work all topics were assigned by the supervisory teacher.

Our work now comprises lectures on scientific child study, infant psychology, lectures on the observation of the child, laboratory work in classes on subjects assigned by the teacher for general observation as well as professional theses on results obtained from individual observation. Subjects are also given for study and observation in public schools after graduation and the results of such observations will be tabulated and published from time to time in the *Oneontan*, our school paper.

The subjects chosen to be investigated during the current school year are as follows:

- Love for inanimate objects of nature.
- Earliest memories.
- Jealousy in children—causes.
- Early vocabulary of children.
- Early powers of representation by drawing.
- General excuses of children as to tardiness, for neglect to prepare lessons, et cetera.
- Children's sense of time.

OSWEGO NORMAL SCHOOL

The plan for child study recently adopted in the State Normal and Training School, of Oswego, N. Y., aims to make child study, as far as possible, a direct means for furthering the training of teachers.

We believe that he only can teach the child intelligently who knows the child, and that in proportion as this knowledge is thorough and exact, efforts in furthering his best development will succeed.

We aim to give an opportunity for our pupils to come into touch with children at the very beginning of their professional work, in order that they may join educational theory with observed facts of child mind and character. We desire that this acquaintance with children may grow during the professional course, culminating in the practice term in an intelligent interest in the children they are to teach.

The work is arranged in three divisions:

I. Preparatory work.

This work begins in the class in psychology. It aims, first of all, to give an opportunity for the observation of child mind during the study of psychology, so that pupils may become directly acquainted with the psychology of childhood, and at the same time find a scientific basis for pedagogical psychology. The plan provides for the observation of children in the school of practice for one month in the first half of the term—during the study of sense perception, while the pupils are mastering those principles that are at the foundation of object teaching. Observation for a second period of six weeks is given in the last half of the term, during the study of reproduction, memory, apperception and imagination, for the purpose of gaining material which will assist them in reaching well-founded pedagogical laws. Weekly meetings for free discussion are held during the progress of this work.

The work in general method in the following term aims to limit all theory in method to the observed facts of mind, and to establish as the definite measurement of the worth of teaching, its effects on the mind and character of children. During the discussion of principles and methods the whole class observe work with children embodying these principles, thus giving opportunity for the discussion of that which all have seen.

Individual observation in this class becomes class observation, and is taken up as a regular class exercise.

II. Child study proper begins with the practice class in the systematic observation of the psychical development of individual children.

The object of this work is to train the pupil teacher to a quick and accurate apprehension of child mind and character, in order that he may more wisely choose and skillfully employ means to meet the varying needs of individual development. We study the child to the end that we may more intelligently direct his growth.

The method is simple. Each pupil teacher selects some child in his class that especially interests him—usually some child who needs especial attention is selected. The leading characteristics of this child are studied, any marked habits, physical or psychical, are noted. Causes for these are sought. He asks himself what are the best possibilities of the child, and what his greatest dangers. He then determines his needs, i. e., the kind of treatment that will be likely to produce the best result. These observations are put into the form of a report, which is submitted to the teacher in charge of the work.

The subsequent development of the child is now observed. Any marked changes in his manner of thinking, habits of working, habits of attention, character of interest, relation to his fellows, etc., are noted.

In case of bad mental or physical habits means for betterment are employed, and their effect noted. The following records indicate the character of this work:

1.

Boy, age 13 years.

1. Marked characteristics.

Knows the difference between right and wrong, but cares to do right only so far as fear of punishment for wrong-doing impels him to. He has not as keen a sense of right or wrong, however, as most children of his age.

Illustration.—During a class recitation, one of the pupils, in speaking of fortune-telling, said that it was a sin to believe in fortune-tellers, because God is the only one who knows the future. This seemed ridiculous to J——, and without waiting a moment, he said, in the most scornful tone of voice, "Sin," and then laughed.

He is fairly bright.

2. Marked deficiencies: Lacks power of taking care of himself. He has to be watched. Lacks self-respect.

3. Marked habits:

(a) Physical. Always carries his hands in his pockets. Head usually down. Lips curled. Seldom looks pleasant. Is rough at play. (b) Psychical: Is interested in anything exciting.

Illustration.—In reading the selection "Capturing the Wild Horse," he was intensely interested. He had seen a picture of the wild horses, and was impatient until the class reached this selection.

4. I know of no modifying physical conditions.

5. I know nothing of his surroundings or management outside of school.

6. Dangers and possibilities.

There is marked danger in the direction of recklessness. He has energy, but it seems never to have been turned in the right direction for any length of time.

It seems to me that this child's life outside of school must be understood before he himself can be understood.

Since observations were recorded I have learned that the child's mother is dead and that his father does little or nothing for this child or his younger brother, both of whom live with a grandmother. I have succeeded in getting the child to talk quite freely with me. He talks of going to work, and says he intends to leave school after this term.

2.

Girl, age 12 years.

Quick in perception, good memory and good power in making comparisons and inferences.

She is truthful, but obstinate and self-assertive. She is inclined to be diplomatic. Her work is fair, but shows lack of perceptive power. It shows also some degree of willful neglect. She has her own way, whenever possible, and if she prefers not to work, it is very hard to get her to do so.

The child is of slight build, and has a narrow, somewhat sunken chest. She has a habit of looking sour and melancholy, and of walking carelessly and with shoulders stooped. She does not lift her feet well, but scrapes them on the floor.

She needs wise encouragement and restraint with plenty of sympathy and love.

Second Report :

No improvement. The child reasons well but lacks quickness of perception. She does not observe well in Nature work ; does not get matter from the material. Her work moves more smoothly, but it is because she understands conditions better and does not overstep the bounds. There is no real improvement in character. She has no chums ; does not seem to feel herself a part of the class. She is indifferent to the children about her. She is self-estranged.

3.

Boy, age 12 years.

Has a bright, clear mind ; is honest, but very unever in his work. He is inattentive and works when he obliged to only. He is inclined to be disobedient.

His face wears a set expression ; it is morose and unsympathetic ; he rarely smiles. He is illy kept with indications of neglect at home. He has the look of one who feels himself neglected. He appears to lack sympathy for others.

He needs to have developed in him an interest in the work which he is to do, and to be given some high ideal toward which to work. There is danger from the child's lack of interest in work of his becoming careless of life.

* * * * *

No one can continue the work of the study of the individual for any length of time without realizing vividly that the teacher is really meeting the most vital social problems. This work points urgently to the need of parents' meetings. The school can never successfully provide for the best development of children in ignorance of some of the most vital conditions that affect their lives. Our young teachers have often shown a commendable perseverance in looking up conditions in the lives of children difficult to understand.

"Why, I never thought of looking at a child in that way before," said a young teacher yesterday who was taking her first step in this sort of practical psychology, "but it makes him interesting." We have learned that the truest way of securing the development of the pupil teacher is to get him earnestly, systematically and self-forgetfully at work for the child.

Meetings for child study are held each week in the school. A part of these meetings are given to the discussion of the study of individual children, just described.

In addition to this, subjects along the line of practical educational problems are discussed. The teachers observe these lines and report the results of their observations. Our teachers have studied the motives of children, reporting the number of children in class who are plainly working under a well-defined motive; number who are plainly without motive in work ; number of whom it is doubtful. The motives most conspicuous in the work were also reported. This was followed by a study of interest and the relation between motive in work and the character of interest manifested; a study which proved very profitable.

Our present subject is motives of adults as seen by children. This work is conducted in much the same way as the work with the Oakland teachers, reported by Professor Earl Barnes of Leland-Stanford University. We find it valuable in turning the attention of our pupil teachers to some of the most important practical educational problems in their own work.

All the above work is under the direction of one teacher.

III. The close study of one child will, we believe, help to a quick apprehension of all the children. But we wish to make our work of child study felt in the daily lives of all the children; we

believe that its real worth will be measured in its power to do this. For this reason the work is carried on practically by the principals of the various departments of the Practice School, who meet the pupil teachers a few times during the term for the purpose of reviewing the children in their classes.

In these meetings the pupil teachers have an opportunity for a free discussion of the individual children intrusted to them. The discussions, under the guidance of the principal's questions, aim to bring out ideas of the child's character, of his habits of work, etc. Some latent power in one child is emphasized and best means for its development suggested, or the causes for the unequal development of a second are sought; in every case the question as to whether the child is developing rightly is the prominent one. This work is condensed in the form of very brief records (see Forum for May, 1893), which are kept in the department.

POTSDAM NORMAL SCHOOL

Replying to your inquiry concerning the work done in child study at this normal school I would state that for the past five years it has been our practice to emphasize the necessity of child study for two distinct purposes:

(a) To insure the highest good of the child; and (b) to establish in our teachers in training the habit of individual instruction and discipline.

From the nature of the problem, the results of untrained observation have in my judgment no value as the basis of scientific conclusions; and it being impossible to eliminate the personal equation of these inexperienced observers, we have not preserved the data submitted. Elementary tests of the sense organs of sight and hearing are found helpful in what may be termed "Child-care," and in training teachers to be considerate in their judgments regarding the intelligence and the disposition of their pupils. I may be pardoned for expressing the judgment that great caution is needed, else physical defects will be intensified rather than remedied by the interposition of "helps" which interfere with natural tendencies to adaptation and adjustment. A greater evil is not always avoided, viz., the inculcation of precocious self-consciousness which rapidly deteriorates into hypochondria.

We have found the study of the imagination helpful in the selection of reading matter for certain grades which has perceptibly affected the quality and the quantity of work accomplished in other branches.

The study of the dominant emotions of individual students has proved helpful in the discovery of means for correcting "troublesome pupils."

Preliminary observations are being conducted to determine the limitations of memory in young children.

The work in child study has been conducted so far, exclusively with reference to the efficiency of teachers in training, rather than for scientific research.

UTICA PUBLIC SCHOOLS

In connection with the work done in our child study class, we made last spring an examination of the sight and hearing of all the pupils in our schools. Possibly a brief description of this work may be of interest.

Snellen's test card (purchased at 10 cents each through W. H. Kron, University of Illinois, Champagne, Ill.) were used to test the eyes, and an ordinary watch to test the ears. All the teachers were called together, and by the aid of an oculist, the method of testing was explained and illustrated to all. The teachers then returned to their schools, and tested, during spare moments, all the pupils, and recorded the results. Each pupil was placed at a distance of 20 feet from the test card and told to read the letters in order from the largest type toward the smaller. The line of smallest type that he could read readily and accurately was noted. Over each line on the test card are figures which represent the number of feet at which the type of that line should be read by the normal eye. This number was made the denominator and 20, the distance at which it was read, the numerator of a fraction, which became the record of that pupil. Thus $\frac{20}{80}$ indicated that at 20 feet distance the smallest type that could be read was that which should have been read, if sight was normal, at 80 feet. This of course indicated quite serious nearsightedness; $\frac{20}{15}$ indicated that at 20 feet the person could read type that by the normal eye could be read only 15 feet. This indicated moderate farsightedness. Thus was recorded the result for each pupil.

The cards also contain lines for testing, in a rough way, astigmatism. This was recorded if found present, and inquiry was made of the pupil if he was troubled much with headache. If he was, this fact was also recorded. Color tests with colored cards, worsteds, or ribbons, were also made to discover causes of color blindness. Pupils wearing glasses were tested with their glasses on. Tests were made for both eyes together and for each eye separately.

The hearing was tested by placing upon a table an ordinary lady's watch, and having the pupil slowly approach the table until he could just hear the watch tick. The distance from his ear to the watch was measured and recorded. This test was made for

both ears together and for each separately. The entire grade were tested by the same watch and under conditions as nearly identical as possible, and the average distances for the grade were found. With this average the record of each pupil was compared to detect defective cases. The recorded results of all these tests were sent to the office of the superintendent and carefully reviewed and compiled. The following are some of the items of the summary:

Whole number of pupils examined.....	6,113
Number whose record in one or both eyes was $\frac{2}{8}$ or lower..	667
Number whose record in one or both eyes was $\frac{2}{8}$ or higher..	23
Number whose record in one or both eyes was $\frac{2}{8}$	890
Number between $\frac{2}{8}$ and $\frac{2}{8}$	48
Cases of marked astigmatism.....	1,187
Cases of marked astigmatism combined with headache.....	562
Cases of color blindness.....	134

Of course quite a number who were myopic were also astigmatic and are counted in both records in above figures.

The tests of hearing showed 406 pupils who could not hear the watch at one-third the average distance of their classes, and 399 more who could hear only at one-half to one-third such average distance.

The records were then returned to the principals and they were directed to notify parents in all cases of defective sight or hearing. One form of notice advising immediate attention by a specialist was sent in all cases where the record for one or both eyes was $\frac{2}{8}$ or lower, or $\frac{2}{10}$ or higher, or which showed marked astigmatism, or when hearing in one or both ears was lower than one-third the average for the class. Another form, calling the attention of the parent and suggesting another test by a specialist, was sent when the record for one or both eyes was $\frac{2}{8}$ or between $\frac{2}{8}$ and $\frac{2}{8}$ and for those whose record for one or both ears was between one-half and one-third the average. Both notices contained a transcript of the record for the child whose parents were notified. So far as possible teachers saw the parents also. Upon this basis it was found necessary to send the stronger notice to the parents of 1,202 children and the other notice to the parents of 965 children. Thus we found that there were 2,167 out of 6,113 children or 35 6-10 per cent. whom our tests showed to be defective in sight or hearing or both.

Doubtless more scientific tests would show some of these children to be all right; but inquiry of two or three oculists brought out the fact that all of those children who had come to these oculists as a result of our notices only one did not need treatment, and some of the cases were pitiable indeed.

What were the results of all this? I can record here only a few. Many serious cases were discovered that had not been suspected before. Some of these were treated at once and, as physicians testify, the sight or hearing of the child saved for life because treated in time. Numerous expressions of profound gratitude have come to us from parents of such. Others were led to wear glasses which so remedied the defect that study was much easier and headaches disappeared. Teachers discovered causes for apparent stupidity or inattention that made them heartily ashamed of their former opinion of certain pupils, and led at once to radical change in treatment. Much greater sympathy between teacher and pupil is another result in many cases. It caused an entirely new arrangement of pupils in their seats, so that the defective ones are now where they can see and hear what is said or done for their benefit. All new pupils are tested, and the records of all defective ones are placed upon all transfers of pupils changing schools, to be recorded in the new school.

The work has been quite heavy, but we are all satisfied that it has paid many fold.

Another line of work in child study is shown by the following blanks:

(A.)

CHILD STUDY — UTICA PUBLIC SCHOOLS

To Teachers: Fill the following blanks as soon as possible after the child enters school. To be of value the entire record should be made during first two weeks of attendance. Teachers will not fail to note the many important relations between what the child knows and what we try to teach him. Apply what we have learned of apperception.

Do not hesitate to make these records because definite information can not be had on all points. Record what can be learned. Much of the information should be sought from parents. If parents are approached with tact and in the right spirit, they will not only give the information but will be glad teachers are taking such an interest in their children. Always explain that you seek the information in order that you may understand and instruct the child better.

PUPIL'S KNOWLEDGE UPON ENTERING SCHOOL.

Name..... Age.....years.....months. Date.....

Color

What colors does he know?.....
Does he know the color of grass?..... The sky?..... Snow?.....
Ink?..... Milk?..... The daisy?..... A lemon?.....

Form

Does he know the shape of an orange?..... An egg?.....
A stove pipe?..... A brick?.....

Number

Does he know two?..... Three?..... Four?..... Five?.....
.....

(B.)

CHILD STUDY—UTICA PUBLIC SCHOOLS

To Teachers: Do not think that, because you can not answer all the questions at once, nothing should be attempted. Make a start. Answer what you are reasonably sure of. Add to your answers as you can discover more information. Do not hesitate to correct or note changes by adding to or changing previous records. Be on the most careful guard against allowing prejudice to affect answers. Also try to study the child without his being conscious of the fact.

Physical

Pupil's name..... Age.....years.....months. Date.....
 Hight.....ft.....in. Weight.....
 Chest: Lungs empty.....in.; lungs full.....in.
 Color of eyes..... Color of hair..... Complexion.....
 Head: Size.....; shape.....
 Habit of sitting.....; standing.....
 General appearance.....
 Deformities
 Movements: Vigorous, languid or nervous.....
 Control of body. (Give suggested tests.).....
 Breathing: Free or obstructed.....
 Observance of hygienic rules: Food.....
 clothing.....; sleep.....
 exercise.....; tobacco, etc.....
 Serious illness ever?..... Effects remaining?.....
 Present health?.....
 Parents' nationality?..... Occupation?.....
 Hereditary influences?.....
 Home association?.....

The Senses

Sight: Near sighted?..... Far sighted?.....
 Other defects?..... Distinguish colors accurately?.....
 Hearing: Acute or dull?..... Distinguish slight difference of pitch?.....
 Distinguish sounds of different things?.....
 Appreciate melody and harmony in sounds?.....
 Detect slight differences in weight?..... In temperature?.....
 Control of the hand in writing, modeling, etc.?.....
 Power to interpret impressions through the senses?.....
 Extent and quality (in general) of apprehensive knowledge? (For new pupils consult blank I.).....

Attention

General power of attention: Involuntary?..... Voluntary?.....
 Time limit of power of attention?.....
 To what does he attend most readily?.....

Memory

General power of memory?.....
 What things best remembered?.....
 Through what sense is the knowledge gained that he seems best to remember?.....
 Does he recall mental pictures accurately, or considerably modified?.....
 Nature of modifications?.....

Imagination

- Does he picture in his mind scenes he reads or hears about?.....
- Does he picture in his own mind the conditions of a problem he is to solve?.....
-
- Does instrumental music suggest objects or events to him?.....
- Does he live much in fancy or imagination?.....
- If one kind predominates what is its nature?.....
- Effect of this upon his nature and actions?.....
- Does he like fairy tales..... Ghost stories?.....
- Does he dream much and vividly?.....
- Effect upon him of his dreams?.....
- Is he inventive in school work?..... In play?.....
- What direction does his invention take?.....
- Does he give or appreciate an ideal or poetic turn to things he sees or hears?.....
-
- Does he ever fail to discriminate between what he remembers and what he imagines?.....
-

Reasoning

- Does he, of his own volition, inquire much for the reason of things?.....
- Can he give the reason for many things?.....
- Can he classify well?.....
- In what respects does he fail or excel in his efforts at classification?.....

Emotions

- | | |
|---|------------------------------------|
| Self-control?..... | Love of self?..... |
| Temper?..... | Activity? |
| Sensitive?..... | Bashful? |
| Proud?..... | Persistent or volatile?..... |
| Deliberate or quick to decide?..... | Opinion concerning dress?..... |
| Timid or brave?..... | Of what most afraid?..... |
| Course of action when displeased?..... | |
| Sense of humor?..... | Does he laugh easily or much?..... |
| Care of property?..... | Bravest deed he ever saw?..... |
| Some brave thing he would like to do?..... | |
| Affectionate?..... | Generous? |
| Sociability?..... | Treatment of other children?..... |
| Of animals?..... | Of playthings?..... |
| Any hatreds?..... | Of what or whom?..... |
| Why?..... | Obedience? |
| Prominent characteristics shown in play?..... | |
| What studies best liked?..... | |
| What does he consider most beautiful?..... | Next?..... |
| Knowledge of truth?..... | Respect for truth?..... |
|, Teacher. | |

These are for more detailed study of individual children, and are used only by members of the child study class. Each member of the class was furnished with a few of these blanks and urged to start with one, two or three children. Many suggestions for the work were discussed in class. At subsequent meetings of the class, records, so far as made, were read (without names) and discussed, especially in regard to the best method of treating the child in school.

This work has just been begun by us and it is too early to speak of results, except to say that already teachers show an increased and more intelligent interest in the children studied.

In conclusion I can not refrain from speaking of the great help we have all derived from the child study monthly published by the Werner Company, Chicago. Over 40 copies are taken by our teachers. It is indispensable to intelligent study in this department by beginners as we all were six months ago.

GEORGE GRIFFITH,
Superintendent.

4. REPORT ON CHILD STUDY IN NEW YORK STATE IN INSTITUTIONS NOT DIRECTLY UNDER STATE CONTROL

CORNELL UNIVERSITY

*Child Study and Child Psychology

MARGARET E. SCHALLENBERGER

For many people the terms child study and child psychology are synonymous; therefore everything that has been done or that is being done, with the ostensible purpose of obtaining knowledge concerning the child's mind, body or soul, they call child psychology. Surely no arguments are necessary to convince any intelligent person that nothing could be more absurd. Psychology has its own prescribed field of action, as limited and definite as that of any other science, and the study of children is no more child psychology than it is physiology or hygiene, sociology or anthropology. With the study of children as a basis upon which to build a system of education, psychology as psychology does not concern itself. As a science among other sciences, she is interested in all true progress in scientific investigation, and in this relation approves of any work which deals with material at first hand, observes accurately, records carefully and interprets wisely. She is, however, no more sympathetic than are any of the other sciences, e. g., physiology, botany, physics. Her attitude toward child study then, in any form that can prove its claim to be scientific is one of interest and approbation, though, with her sister sciences, she naturally looks upon much of the so-called scientific child study, not only with amused distrust, but with strong disapproval.

Toward child psychology itself her attitude is, of course, very different. Child psychology, if it is anything, is psychology. Psy-

*This paper is intended, not to report the work done in Cornell University, but to reflect the attitude of the university and to indicate the lines of investigation it considers fruitful.

chology is the science of mental processes, and these mental processes are in course, from birth to death. Therefore, any truths which can be discovered through the study of the child mind are direct additions to the sum total of psychological knowledge. To ask what is the attitude of psychology toward child psychology is almost like asking the attitude of the whole of a thing toward a part of it. Child psychology is psychology.

But psychology has so recently been able to call herself a science and her claim to the position rests so largely upon her method, that the psychologist is not worthy of his name who would accept unquestioned as pure psychology even the best work that has been done with children under that title.

The working method of psychology is introspective. It is not an easy method, even for adults. No systematic attempt as yet has been made to apply it to children. There may be children who can be taught to introspect; but this is not proven.

For this reason the child psychologist must use less adequate methods than that of the experimental psychologist, and must content himself with less certain results. This limitation is not generally understood. There seems to be a wide-spread opinion that the child, on account of his "spontaneity," lends himself as a particularly easy and worthy subject to this difficult science. Whatever advantages the child may have as a subject over the adult, it should not be forgotten that the method of the modern psychological laboratory has not and probably never can be the method for him.

The greatest mistakes that have been made in otherwise valuable investigations of children have been in interpreting the observations made in terms of the out-of-date faculty psychology, in interpreting upon too little foundation, or in working upon a biological rather than upon a psychological basis. The field is open, and it seems as if the time were ripe for a child psychology to be written by one who did not lose sight of the fact that he was writing a book on modern psychology.

It may be asked how, then, the child psychologist can work if the method of introspection is closed to him. There are other methods. All that has been done so far in animal psychology has been done upon the assumption that there exists a certain analogy between the animal mind and the human mind. Surely since the child is to become the adult, there is even more basis here for the application of analogy. But we ought to be fair to the child in this comparison. We are not fair when we seize upon him, haphazard, at any age, and compare his miniature mental progresses with those of the adult from whom he is so widely separated by sexual and other specialization. There must be a time in the growth of a child

when he most nearly resembles the adult. Would not this be the most fitting period at which to begin to apply analogy? As far as can be learned, however, no attempt to formulate a scientific genetic method has been made, even by those whose observations have been accurately taken and carefully recorded; while the crude and wholesale comparisons made by observers totally untrained in science, have done much to bring the subject of child psychology into disrepute.

The most available psychology for the study of the child mind is physiological psychology. Accurate measurements can be taken of pulse beat, e. g., and observations made upon expressive movements, in which doubtless the child's spontaneity will be of use.

For a long time the science must be descriptive rather than explanatory. We must wait, and we can afford to wait, for theories.

In order, now, to bring out the chief points of what we have said above as to child psychology and its present status, we may summarize briefly as follows:

A. What child psychology has accomplished.

- (1) An intense interest in the subject has been created.
- (2) Some careful "word photographs" of child life have been taken.
- (3) Theories have been advanced, some of which may prove valuable.

The only absolute accomplishment, it will be seen, is that given under (2); and it must be remembered that these photographic records are by no means always, or exclusively, psychological. (1) and (3) are rather promises for the future than accomplishments in the present.

B. What the popular child psychology of to-day needs.

- (1) Less sentiment.
- (2) Less desire on the part of observers to utilize the observation.
- (3) More knowledge of modern experimental psychology.
- (4) A clear understanding of the limitations and difficulties of child psychology.
- (5) A working method on methods.
- (6) A healthy distrust of a great deal that passes for child psychology.
- (7) Better observations and fewer theories.
- (8) The courage, the fear, the self-assurance and the modesty of the scholar.

CHILD STUDY IN THE TEACHERS' COLLEGE, NEW YORK CITY

J. F. REIGART.

In the Teachers' College child study plays an important part in the training of teachers and in determining the course of study and the methods of the Horace Mann School.

The subject is not confined to any one course or teacher or department; in the departments of manual training, art, science, history, literature, as well as in the departments of psychology and methods, observations are directed and published investigations are utilized. A complete discussion of child study at the Teachers' College would therefore involve a description of the work and methods of each department and of the specific school questions that have demanded solution. In a general way, however, an account may be given of aims, methods and results.

The general aim is to train teachers who will know their children and will adapt all courses of study, methods and discipline to that knowledge. To attain this end, child study is made a matter of habit and is taken as the foundation of principles and methods of education. The study of children is begun during the first weeks of the junior year. The work is introduced by three or four lectures on the history, methods, classifications and bibliography of child study. The class is then divided into groups of six to ten and each group is assigned to a grade for observation, attention to be given to the children rather than to methods. The character of the observations is usually determined by the class work in psychology or by syllabi, but each grade teacher is at liberty to direct her group to any practical problem in the grade.

All observations are reported to the grade teacher or to a member of the department of psychology. These observations, as well as those of the examining physicians, are utilized as far as possible in the adjustment of school room conditions to the needs of the children. The syllabi on temperament and physical tests and measurements indicate some of the points covered.

Temperament

I. Reactions to stimuli.

(I) Rapidity of response.

1. Quick.

(1) Varied in character.

(2) More uniform in character.

2. Slow.

(1) Moderately slow.

(2) Sluggish in physic changes and in motor responses.

(II) Strength of response.

1. Great.
2. Small.

II. Tenacity of impressions.**(I) Duration of particular response. (Hold of attention.)**

1. Short, fleeting.
2. Prolonged.

(II) Conservative power—general retentiveness of impressions.

1. Strong—impressions long held, deep, stable.
2. Weak—impressions easily lost, evanescent.

III. Range of effective stimuli.**(I) Wide—**

Preferences shows, if any.

(II) Narrow—

Preferences shown.

IV. Measure of sensitiveness.**(I) Susceptible to delicate impressions.****(II) Susceptible only to coarser impressions.**

References: Preyer, *Infant Mind* Chap. II

Ladd, *Psychology*, chap. 27.

Physical Tests and Measurements

Name.

Date.

I. Remarks about history and environment.

1. Date of birth.
2. Birthplace.
3. Birthplace of parents.
Father.
Mother.
4. General health.
(1) Past: good, fair, poor.
(2) Present: good, fair, poor.
5. Occupation of parents.
Father.
Mother.
6. Grade.
7. Number of years in school.
8. School or schools before attended.

II. General measurements.

1. Height standing.
(If taken in shoes subtract.
Thickness of heel.)
2. Weight.
3. Grip.
4. Chest girth.
 - (1) Inflated.
 - (2) Deflated.
 - (3) Counting.
5. Lung capacity.

III. Measurement for desks and seats.

- 1. Height of seat.**
Height of knee sitting.
- 2. Depth of seat.**
Distance of knee from back, length of thigh.
- 3. Height of desk.**
Difference, elevation of edge of the desk above the seat.
 - (1) Methods of obtaining difference.
 - a. Take elbow height of seated child
 - Subtract seat height
 -
 - Add allowance of about 3 in.
 -
 - Difference ————— Total
 - b. Difference — from 1-8 to 1-6 of pupil's stature.
 - Estimate of Maine State Board of Health,
 Prepared for year ending December, 1891.
 - To 1-7 of pupil's height add
 1-2 inch for smaller children.
 1-4 inch for older children, particularly girls.
- 4. Breadth of desk.**
Distance, horizontal distance between front edge of desk and perpendicular erected from front edge of seat.
 - (1) Full distance, when front edge of desk just grazes perpendicular erected from front edge of seat.
Effect, bad.
 - (2) Plus distance, when front edge of desk falls short of perpendicular erected from front edge of seat.
Effect, bad.
 - (3) Minus distance, when front edge of desk projects over perpendicular erected from front edge of seat. Effect, good.
- 5. Slope of desk.**
Best slope, one inch in six inches.

6. Seat back.

(1) Height.

Forms.

a. Very low.

Giving support to pelvis only.

b. Reaching to small of back.

c. Extending to dorsal region, giving support to shoulders

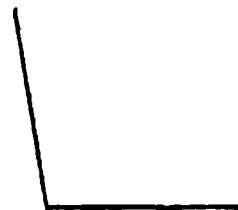
(2) Slope.

Forms.

a. Perpendicular.

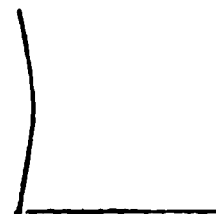


b. Vertical with backward slope

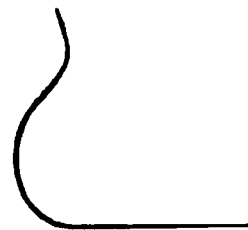


c. Nearly perpendicular as it rises upward from seat with a gradual backward slope as it rises.

Best form



d. S form, presenting a concavity to lower part of trunk and convexity to upper dorsal region.



IV. Eye tests.

1. Myopia.

(1) Right eye.

(2) Left eye.

2. Hypermetropia.

(1) Right eye.

(2) Left eye.

3. Astigmatism.

(1) Right eye.

(2) Left eye.

4. Color blindness.

V. Ear tests.

Defective hearing.

1. Right ear.

2. Left ear.

VI. Dermal sensibility.**1. Sensitiveness to slight stimuli.****(1) Degrees.****a. Normal.****b. Abnormal.****(a) Acute.****(b) Dull.****(2) Tests for detecting marked abnormality.****a. With eyes of pupil closed, touch back of his hand with a pencil, ask him to touch the same spot with a pencil. Note the error.****b. With eyes of pupil closed determine least distance apart at which points of compass can be felt as two.****Caution — Guard against variations due to fatigue.****2. Sensitiveness to pain.****(1) Degrees.****a. Normal.****b. Abnormal.****(a) Acutely sensitive.****(b) Callous.****(2) Test.****Press back of hand with dull point, as that of a bone crochet needle; note special sensitiveness or callousness to pain.****3. Discriminative sensibility.****(1) Degrees.****a. Normal.****b. Abnormal.****(2) Test.****Aesthesiometer.****4. Liability to cold.****(1) Moderate.****(2) Extreme.****VII. Muscular control and co-ordination.****1. Motor ability, rapidity of movement.****(1) Test.****Let pupils write some character, a letter or figure, as rapidly as possible for ten, fifteen, or thirty seconds.****Note the specially slow and specially rapid writers.**

- (2) Degrees.
 - a. Great.
 - b. Normal.
 - c. Small.
- 2. Accuracy — form.
Test.
Note accuracy of form of character in above test.
- 3. Precision of movement.
 - (1) Test.
Determine pupil's ability to hit with precision
a point on paper or blackboard, with a
pointed instrument.
See Scripture's Steadiness Gauge.
 - (2) Degrees.
 - Good.
 - Fair.
 - Poor.
- 4. Endurance.
 - (1) Tests.
 - a. Ability to hold out in test for motor ability.
 - b. Class-room observations.
- 5. Nervous control.
 - (1) Tests.
 - a. General,
Class-room observation.
 - b. Special,
 - (a) Ability to sit still without involuntary
movements.
 - (b) Ability to stand still with eyes closed
and heels together.
 - (c) Ability to thread a needle.

VIII. Physical characteristics.

- 1. Motor habits.
 - (1) Character of movements.
 - a. Force.
 - (a) Vigorous.
 - (b) Languid.
 - b. Control.
 - (a) Well controlled.
 - (b) Nervous.
Unrestrained, explosive, jerky.
 - (2) Automatisms.
See Dr. Hall's Topical Syllabi for Child Study.
X. Some Common Automatisms, Nerve Signs
etc.

2. Carriage.

- (1) Erect.
- (2) Drooping.

3. Breathing.

- (1) Nose breathing.
- (2) Mouth breathing.

The study of psychology is founded upon observation, and through observation its principles are illustrated and applied. The usual steps in following a subject are: (1) Suggestive questions for observations, reminiscence, or experience; (2) The writing of a preliminary report or outline; the reading and analysis of a chapter in James' "Psychology"; (3) Reference work in pedagogical seminary — Preyer, Baldwin, Sully, etc.; (4) Visit of the entire psychology class to a class in woodwork, gymnastics, history, or whatever subject best serves for illustration and application; discussion of the lesson observed and its applications; (5) The preparation by each member of the class of a paper from the standpoints of observation and child study, the analysis and classifications of psychology, and pedagogical application.

The order of topics is given below, and also the preliminary questions for the study of will.

I. Introduction.

1. Unity of educational ends.
2. Self-activity the law of growth.

II. The fundamental conditions of growth.

1. Habit.
2. Imitation.
3. Interest.

III. Motor activities and training of the will.

1. Will.
2. Instinct.

IV. The feelings and the training of the emotions.

1. Sense feelings.
2. Ideal feelings.
3. Sentiments.

V. The intellectual powers and training to think.

1. The stream of thought.
2. Personality.
3. Attention.
4. Association.

5. Memory.
6. Imagination.
7. Perception.
8. Conception.
9. Judgment.
10. Reasoning.

VI. Psychological conditions.

1. Of sensation.
2. Of movement.

Will and Character

I. Description.

1. Think of some persons you know or of some historical characters who seem to possess will power.
2. Think of others deficient in will power.
3. Give reasons.
4. State the importance of will.
5. Relation of will and character.
6. Importance of training the will.
7. Do you always do what you will to do?
8. Why not?
9. When we say: "I can't learn arithmetic," "I can't help forgetting," "I can't keep my mind from wandering," or "I can't control my temper," what weakness is evident?
10. Do you think it is possible to learn how to will?
11. What are the conditions of learning how to will?

Note.—To learn how will power is exerted under difficult circumstances, we must first study the conditions of easy willing.

12. Perform some simple, voluntary acts— e. g., opening a book, winking the eye.
13. How did this differ from an act done reflexly or from mere force of habit?
14. Is the difference in the movements or in the states of consciousness?
15. What is the distinctive character of the voluntary act?

II. Analysis.

1. Analyze the state of consciousness accompanying a simple, voluntary act.
2. What must you know?
3. What must you feel?
4. Is voluntary action original or acquired?
5. Why?

6. What experiences are necessary? How we acquire the ideas of movement?
7. If you wish a child to make a certain movement with a pen or a needle, how may you teach it?
8. What is the value of the feeling of movement?
9. When a movement can be readily made should you think of the movement or only of the end? Illustrate.

III. Classification and Generalization.

1. Think of some voluntary movements most easily and quickly performed.
2. How many ideas of movement were present?
3. Describe the state of mind when conflicting ideas of action are present.
4. How name this state?
5. What change must occur that action may result—e. g., hold a finger extended, think of bending it, but do not bend it. Now give up the idea of holding it extended, and what is the result?
6. What is it to make a decision?
7. Is a state of indecision agreeable or disagreeable?
8. Should decisions be formed quickly or slowly?
9. Give illustrations how decisions are made.
10. Do you like to make decisions, or do you often try to shift the responsibility to other people or to circumstances, or do you often wait for a wave of impulse to carry you to a decision?
11. Illustrate.
12. What is the effect of such modes of decision upon the forming of the will?
13. Think of some reasonable decisions you have made, and notice how you reached the decisions.
14. What training is necessary for acquiring a will prompted by reason? Notice the importance of accurate moral and practical ideas and right judgment.
15. What opportunities for choice should be given to children?
16. In what kinds of decisions do you feel that you especially need will power?
17. What kinds of ideas are usually overcome only by effort?
18. Illustrate.
19. What is the importance of the power of effort?
20. To what end should education be directed?
21. How do you bring effort to bear in the carrying out of an idea which is contrary to strong impulses?
22. How may training in memory help to train will?
23. How may training in attention help to train will?

IV. Application.

1. Think of instances of well and of poorly trained wills; compare.
2. Make a summary of the qualities which constitute a well-trained will.
3. What should be done toward forming the will of a child at home and at school by means of play, rewards and punishments, subjects of study, methods of instruction?
4. How secure self-control of one's actions, feelings and thoughts?

In the study of methods of teaching the students are not given formulas for teaching; they are required to write accurate, complete and systematic reports of lessons observed and to determine, through the study of children, of psychology and of logic, what development is demanded. The method is indicated by the following plan and observations:

Plan for the Criticism of a Lesson

I. Purpose:

1. Definiteness.
2. Wisdom, suitability.

II. Material:

1. Adaptation to pupils' comprehension and interest.
2. Authorities used.
3. Selection of material.
 - (1) Wise, appropriate.

III. Methods:

1. Appropriateness and effectiveness of introduction or preparation.
2. Form of development.
 - (1) Clear, concise, logical.
 - (2) Presentation.
 - a. Clear adapted to interest of class.
 - (3) Association.
 - a. With previous knowledge.
 - b. With other lessons and other subjects.
 - c. With life and environment.
 - (4) Classification generalization.
 - a. Definite, accurate, appropriate.
 - (5) Application.
 - a. Definite, sufficient in practical and disciplinary value.

IV. Language:

1. Accuracy and simplicity of expression.
2. Form of questions.
 - (1) Clear, stimulating, tending to train in clearness of thought.

Observation of a Lesson

I. Subject — Wood-work.

II. Grade — 8.

III. Time — 1 hr. 25 min.

IV. Aim —

(I) General.

To train the will and the judgment through the use of tools.

(II) Special.

To teach the correct use of the plane.

V. Previous knowledge. (Knowledge related to this lesson.)

(I) Materials formerly used.

1. Gauge.
2. Square.
3. Triangle.

(II) Knowledge of the terms used.

Matter

I. Introduction.

(What to make.)

(I) Study of the drawing.

1. Dimensions.
2. Character of the work—chamfer.

(II) Compared with the block.

1. Dimensions.

II. Development.

(How to make it.)

(I) Steps of development.

1. How to make a block.
 - (1) Face.
 - (2) Straight edge, et.
2. How to make a chamfer.

(II) Tools to be used.

1. Gauge, winding sticks, etc.
2. Tests to be made.
 - (1) Square in two positions.
 - (2) Use of winding sticks.
3. Explanation of new tool.
 - (1) Principle of the plane.
(Chisel with a guiding surface.)
 - (2) How to set it.
 - (3) How to use it.

III. Application.

Work done at desks by the boys individually.
They followed the steps of the development.

Method**I. Introduction.**

(Knowledge of the end.)

- (1) Mental preparation to give a definite picture of the end, a standard for criticism.
 1. Dimensions read by the pupil.
 2. Term written and meaning explained by having the boys point to examples in the room.
- (II) To get definite ideas of what was to be done.
 1. Dimensions taken by pupil (trained in reasoning; accuracy; stronger impression gained; taught self-dependence).

II. Development. Means.**(I) Boys asked how to begin.**

1. The work of making a block. Suggestions compared; of the test by the boys.
 - (1) Why begin with the face?
 - (2) How get a straight edge?
2. How to make the chamfer.

(II) Tools to be used.

1. How get the dimensions?
 - (1) Why use the gauge?
2. Two ways of testing given by the pupils.
Third way told, and explained by the teacher.
(Winding sticks.)
3. Explanation of the new tool.
 - (1) Attention called to the principle of the plane.
 - (2) Teacher explained the use of the screw.

(3) Analyzed the right and wrong way of using the plane. Used it.

a. Definite points shown.

(a) How to hold the plane.

(b) Use of the plane on the face.

(c) Use of the plane on the edge.

(d) Where to begin on the block.

(e) Result of incorrect use—groove made.

(4) Pupils asked to attempt it.

a. Reasons asked for their failure.

III. Application.

(I) First have the block made.

(II) Then the chamfer.

(III) Teacher corrected individual mistakes by questions and suggestions.

IV. Brief criticism.

(I) Aim of observation of lessons.

To teach us how to make definite, systematic outlines of work, so that we can apply this to our preparation of any subject. We must see method in others and possess it ourselves.

(II) Plan of lesson.

1. Only one new difficulty should be introduced.

2. There should be review of old material.

(III) Results from systematic work.

1. Trains the pupil in systematic work.

2. Analysis of steps reduces effort and mistakes to a minimum.

3. Presenting the principles gives a standard of criticism. Definite knowledge of the end desired is also necessary for this, and it must be clearly presented.

4. Memory is trained by presenting related ideas and having them held at short time. With children the application must not be too remote.

(1) Why have application shortly after the instruction?

a. Important to have the resident sensations.

b. No clear remembrance of a course can be kept.

The following papers on memory and habit illustrate an effective way of helping children to help themselves.

STUDY OF "HOW CHILDREN REMEMBER"

Fourth year in school.

The children were asked to think of some one thing their mothers had told them to do the day before and whether they remembered or forgot to do it. If they forgot to do it, they were asked what made them forget, and if they remembered, how did they remember?

The answers were varied:

1. Tied string around finger. 2. Kept saying the sentence over and over that his mother had said to him, "Go to the store and get some pork chops." 3. Changed her ring. 4. Forgot. Sat down and looked at one thing constantly (the black board), and in her own words, "the thought came." Says she always does this when she forgets. 5. Forgot. Thought of what he was doing when told to go and get the object, where he was, where his mother stood, the surroundings, what she said, then he remembered. 6. Tried hard not to think of anything else. When he began to think of anything else, stopped himself and thought of only what he was told to do. 7. Forgot because he went to play with other boys. 8. Wrote it down.

We then talked over the different ways of remembering that the children had resorted to.

Was tying string around the finger a good way? It worked pretty well, but the trouble was that sometimes they forgot what they tied the string on for.

Was writing it down a good way? They did not have the paper always with them; at other times they lost the paper.

Was changing a ring a good way? How did that make M. remember? This was analyzed by the children, M. telling part and the other children the rest. She looked at the finger that usually had the ring on. It wasn't there and she was frightened and thought she had lost it. She saw it on another finger. How did it get there? She remembered having put it there. Why? To remember something. What was that something? She remembered, and went and did it.

The children were not guided in any one line. They were given the utmost freedom to tell what they had found by experience was the best way to remember when told to do a simple action. First, as has been given, the individual instance was taken, they then thought of other instances in their daily life and the way they generally took to remember things. Each method had a sturdy champion. One or two were firm in the belief that the best way was to keep thinking about it, as one child said "to study it." I cast my vote in with no one lest they should be biased in their further study of the question. We came to no conclusion in this

lesson. We simply heard the evidence and discussed its weight. We arrived at one conclusion, however, and that was this. When told to do a thing right away, the best plan was to do it immediately instead of putting it off. Reasons given for this — “saved so much trouble” — “did not have to keep remembering it” — “were not bothered with it any more.”

Formation of a habit

Occasion.—Children found in bad sitting position though the day before they had been told what a good position was and why.

Excuses given by children.—“I forgot it;” “I have formed the habit of sitting that way,” etc.

How to remember.—Children gave illustrations from their personal experiences.

Winding watches.

Speaking out in class.

Putting hats and coats away.

Story told by teacher of boy who could not remember to put on his shoes at right time. (From Miss Wiltse’s “Place of the Story in Early Education.”) Discussion of methods of association employed and the value of each.

Unsuccessful attempts to form habits. Children gave personal experience. Why unsuccessful.

Dangers of forming bad habits.

Examples given by children.

Summary.

Points to be remembered.

Have good reasons for believing it a desirable habit.

Have strong desire to form it.

Remember to do it every time.

Application to habit in question — good sitting position.

Queries:

Is it a habit worth forming? Why?

Do you want to form it?

Is it necessary to remember it outside of school? Why?

How will you know when it has become habitual?

Class to report progress.

This report indicates that thus far efforts at the teachers’ college have been to organize child study as an aid in the training of teachers rather than to advance the science.

CHILD STUDY IN THE SCHOOL OF PEDAGOGY, NEW YORK
UNIVERSITY

EDWARD R. SHAW

The work in child study falls in three departments: First, the work done under the professor of physiological and experimental psychology in the psychological laboratory. Here upon children brought into the laboratory measurements and tests are made upon the senses, upon time relations and associations of ideas, upon reaction time, upon rhythm, habit, fatigue, pain, etc. The increasing literature of child study is examined as applied to educational problems, in order to distinguish the worthless from that which has value and to recognize the limits and possibilities of child study.

The second phase of child study falls in the department of physiological pedagogics or the course which deals with the relation of medicine to pedagogy. In this department under the direction of the physician who gives this course, children are measured anthropometrically, hearing and seeing are tested and studies made upon children who are deficient or who are suffering from any condition which interferes with their progress at school. In this department an Alpha Round Table was organized last year among the students and faculty of the university school of pedagogy and two other round tables, under the direction of members of the Alpha Round Table were formed in the schools of New York and adjacent cities. In the Alpha Round Table the work is divided among committees who are making investigations upon eyesight, hearing, color, and physical development. A large plan of work has been outlined and thus far, the members have been greatly interested and the returns promise to be of a special value.

In the department of the institutes of pedagogy the subject of Child Study is taken up more particularly with regard to its special application in methods of teaching. Investigations were made last year in this department upon children's interests, involving the collation of over 59,000 items of data, an account of which was published in the Child Study Monthly for July-August 1896.

Data were collected from about 3,000 children bearing upon the question of spelling, and from 2,000 children upon vertical and slanting writing, the speed of children in writing, and upon muscular fatigue in writing. Other studies were carried forward upon children's interests. Several of these studies were planned to test, by changing the methods of investigation, the conclusions that other investigators had reached.

Besides the regular class work, meetings were held in each department once in two weeks and not only students of the University School of Pedagogy, but teachers from New York and adjacent

cities took part in these meetings and helped in securing data called for by the several forms of syllabi.

CHILD STUDY IN THE BUFFALO SCHOOL OF PEDAGOGY

M. V. O'SHEA

Considerable attention is given in this institution to distinct work in Child Study. Three courses are offered, and in addition the systematic psychology of childhood is discussed somewhat in the courses in educational psychology. The work in Child Study may be best considered by stating the purpose and aims of each course:

1. The aim of the first course is to trace the history of the Child Study movement to review carefully what has already been accomplished by different investigators, and to examine in detail the methods they have followed. Child Study is in this course regarded wholly from the standpoint of inductive science, and an effort is made to make the work thoroughly scientific. Problems upon various phases of the physical and intellectual development of children from the fourth or fifth year through the period of adolescence are first set before the students, who are required to make personal observations in the practice department of the school of pedagogy and in the public schools of the city. Such questions as the following are considered: Do children grow uniformly from the fourth or fifth year to maturity. If not, when are the periods of most rapid growth and of retardation? What influence have these growth periods upon the intellectual activity of the child? How should his work in school be affected by them? Do boys and girls grow alike? Do the girls mature earlier than the boys? Does puberty begin in boys and girls at the same age? May boys and girls be treated just alike throughout their school life? What intellectual and emotional changes come at puberty? What special care should be exercised over children at this time? What should be the character of the school work? Should the present curriculum in the eighth and ninth grades and in the high school be modified in any way? Do children of different nationalities develop in the same way? May they be treated alike by the teacher? What are the common defects of school children; their causes, effects, remedies? The frequency of brain fatigue in school children. What conditions in the class-room breed fatigue? What subjects of study are particularly fatiguing to the nervous system? What are the bad effects, intellectually and emotionally, of fatigue? How should the daily program be arranged to avoid fatigue in the largest measure possible? What should be the length of different recitations? How should temperament affect the treatment of the individual pupils? Do the faculties and powers of the body and mind unfold in a certain natural order?

If so, when is the best time to begin reading, writing, and the other branches and how long should they be continued in the school course? What are the predominant interests of children of different ages, and how should the teacher recognize them in her work? What is the content of the minds of children of different ages and different experiences? How do children best learn to express themselves through drawing, through language, through gesture? Have children a sense for the aesthetic? Is there a number sense, a history sense? Etc., etc.

Each student makes a report in class of the results of his observations and then the literature bearing upon each topic is taken up and discussed. In this way it is the aim to direct the attention of teachers to the most important aspects of child development, and to examine all the scientific results that are accessible.

The school of pedagogy is provided with a psychological and Child Study laboratory, and the results of investigations are tested with the children of the practice school, and original investigations are being carried forward. All the work from the beginning to end is of a practical character in the sense that our whole aim is to ascertain how to deal most wisely with each pupil in the class-room.

In connection with the work of this course students are responsible for making original studies, which are prepared and carried out under the direction of the professor of Child Study. Each proposed study is discussed by all members of the class as to its aim, its value for pedagogical purposes, and the probability of getting any definite, reliable results from the method proposed for its prosecution. Sources of possible error in making the investigations are pointed out and studies that have already been made upon this special topic are considered, and the method followed, and results reached, are discussed. The purpose of this work is, in the first place, to bring our teachers into direct contact with a number of children. In the second place, it gives them experience in the scientific study of childhood. It leads them to appreciate the difficulty of such work and the probability of error creeping into results. It also makes them cautious about accepting without question all the results of modern Child Study. Last year original investigations were made upon children's interest in the causal idea, in games, in nature and myth literature, in pictures, in the aesthetic and utilitarian, in future occupations; and children's religious ideas and feelings were also studied.

II. The aim of the second course is to give our pupils skill in the study of individual children. All students go into the practice school and the schools of the city, and there observe individual children according to a plan previously prepared, and after his observations each gives his results in class, these being discussed by all members. In this way a method for the study of individual

children adapted to the needs of the average teacher under the conditions of the ordinary class-room is elaborated. It is the purpose always to suggest how individual children should be dealt with. In order to accomplish this the teacher must be able to observe keenly signs of expression in childhood and interpret them correctly. So far as possible she is led to gain her knowledge without special tests and without making pupils conscious of her study of them; but when, for any reason, tests are thought advisable, simple ones are made upon the senses, the nervous condition of the pupil, and so on. These give more accurate information usually than simple observation can possibly afford.

Throughout this work students are led to constantly review the experiences of their own childhood. It is believed that this reminiscencing will enable the teacher to interpret more sympathetically and accurately the characteristics of the children whom they study. The spirit of all the work is that of sympathy with child-life; and all investigations are to promote the welfare, physical, mental and moral, of the child. No attention is given to a science of childhood apart from the direct application of that science to the daily work of the class-room.

III. The last course offered deals with high school and college students. It is the aim to make studies upon high school and college students along the same lines as have already been indicated for children in the elementary school.

IV. As to the results of these studies, it may be said that they lead students to regard the development of childhood from a much more sympathetic and intelligent standpoint. Instead of feeling that children will develop in a certain manner whether or no, they come to realize that all growth, physical and mental, follows definite laws, and if we wish our education to produce men and women strong in body and mind, we must base our educational work upon the natural laws of growth. Things which our students have never thought of in their work in the class-room, such, for example, as the prevalence of fatigue, the conditions which promote it, the evil effects upon mind and body, etc., come to be regarded by them as of the greatest importance in all instruction. In this way a great many vital matters respecting the physical and mental development of childhood are brought to the attention of teachers where they would probably never otherwise be thought of.

This work is of particular value in giving our pupils skill in making out the individualities of children. When students begin they possess little power of detecting wherein children really differ from each other, and consequently where they should be treated in a manner suited to their special needs. One child is generally thought of as substantially the same as every other child, but after some experience in the study of individual children, with discus-

sion in the class, it has been found that the powers of observation are greatly quickened, and the interpretation of what has been observed is much more intelligent. This study leads to an appreciation of the necessity for every teacher finding out something of the biography, the present home life, the environment, the habits, the inherited influences and the physical defects and capabilities of each of her children. It makes our students ready in detecting such things as fatigue in the schoolroom and the things which produce it, and gives them some readiness in removing or changing the conditions which promote evil effects.

V. During the past year there have been two Mothers' Clubs in the city of Buffalo, conducted by the members of the School of Pedagogy, and a course of lectures has been delivered to the Kindergarten Training Class of the city. It was the purpose in the Mothers' Clubs to apply the results of scientific Child Study to the training of the home. The clubs had definite times of meeting, and the work was carried on in a thorough, systematic manner, and was always most practical and concrete.

5. PLANS FOR THE DEVELOPMENT OF CHILD STUDY IN THE STATE THROUGH THE STATE DEPARTMENT

The very cordial recognition accorded by the press and the public, as well as the teachers, to the work already undertaken in Child Study in this State, and the practically unanimous belief of our leading educators that Child Study is the most promising of all fields of educational investigation and experiment, all seem to afford sufficient ground for placing the work in the State upon a broad and permanent foundation. The work thus far has been to a large extent of an experimental, pioneer character. There is an undoubted demand for the State Department to assume larger responsibilities for leadership in this work than it has yet been able to do. This was shown especially by the action taken at the meeting of superintendents held at Utica. The fact is, that the State is ready for a real educational revival along this line, but it is suffering for trained leadership, such as can apparently only be furnished through some new departure and possible radical innovation on the part of the State Department.

I would, therefore, recommend, first of all, the employment by the State of a specialist in Child Study, to devote his entire time to this work in the State. I suggest that he be added to the corps of institute instructors, and that the effort be made to devote as many institutes as possible entirely to the subject of Child Study. A single period, or at least two periods, in an institute week is an amount of time altogether inadequate for the proper presentation of this

subject. The whole tendency in educational meetings of all kinds now is toward concentration upon one specific topic, permitting a somewhat exhaustive consideration of that topic. An entire institute devoted to Child Study would place that subject upon such a plane in that community that the work would thenceforth be carried on there with much less effort and with much greater success. Child Study is so vast in its scope and touches so intimately all the various relations of educational work that an entire week's program could easily be arranged, that should be of the utmost interest as well as practical value. There are already many things of direct use in the schoolroom that have resulted from child-study investigations. These institutes should be conducted by the specialist in Child Study, assisted by such helpers as might be secured in different localities. To show the practicability of this scheme, I beg to suggest the following model program for such an institute:

PROGRAM

Monday Afternoon

1.45.—Social Aspects of Child Study in Relation to School-Room Work, Conductor.

2.45.—Study of Childrens' Drawings.

3.45.—Punishment of Children from the Child's Standpoint.

Tuesday Morning

9.15.—Children's Senses. Tests for defective vision to be exhibited and applied by the Conductor.

10.15.—Children's Senses. Tests for defective hearing and touch to be exhibited and applied by the Conductor.

11.15.—Children's Senses. Relation of Defective Sight and Hearing to School Room Work.

Tuesday Afternoon

1.30.—Children's Reading. Methods of studying the same, with results of investigations conducted on children.

2.30.—Methods of Examining Children on Entering School to Ascertain What Knowledge They Possess.

3.30.—The Study of the Individual Peculiarities of Children as a Help in Teaching.

Wednesday Morning

9.15.—Physical Measurements of Children with the Relations between Body Growth and Brain Growth.

10.15.—Same subject continued, with the taking of measurements by the Conductor in the presence of the Institute.

11.15.—A Study in Children's Interests. The farm as the center of correlation in country schools.

Wednesday Afternoon

1.30.— The Play Instinct in Children. How best utilized in the school.

2.30.— Food and Growth in Relation to School Life.

3.30.— The Order of Development of the Child's Faculties.

Thursday Morning

9.15.— Results already obtained by Child Study that are directly applicable to work in primary grades.

10.15.— Investigations into Eye Mindedness and Ear Mindedness in Children, with Their Bearings upon the Teaching of Spelling.

11.15.— Same Subject Continued with Illustrative Exercises with Children and Adults.

Thursday Afternoon

2.00.— Methods of Child Study Work That can be Profitably Employed by Teachers.

3.00.— The Influence of Surroundings upon School Work Based upon Miss Eggleston's Studies in Children's Hopes.

4.00.— Question Box.

Friday Morning

9.15.— What Changes Ought to be Made in the Course of Study? The Effect of Adolescence upon School Work.

10.00.— Child Aesthetics. The Study of Music, Color and Form as Instrumentalities of Education.

11.00.— What Light does Child Study Throw upon the Treatment of Backward Pupils.

Friday Afternoon

2.00.— Presentation and Discussion of Plans for Work in Child Study for Members of the Institute during the Coming Year.

3.00.— The same subject continued, with the organization of a local Child Study Society under the direction of the State Department. Instructions given for organizing Round Tables; Mothers' Circles.

A series of evening lectures bearing directly upon this subject could now be secured with comparative ease, as there are a number of competent specialists available for such service. This programme, either in whole or in part, can be used in city institutes as well as in the country sections. It is evident that the chief burden of the work would fall upon the conductor, but several of our colleges and nearly all of our normal schools are now engaged in some line of Child Study work, and from them assistance in such an institute as this could be secured. Such an institute has never yet been held anywhere.

I wish, in this connection, to reiterate and emphasize a suggestion made in my first report, namely, that the State Department should provide and loan to the schools sets of simple, inexpensive instruments for testing the senses of school children and for taking certain physical measurements. Up to this time there has been no demand for these instruments from the schools because teachers did not know how to use them. If a series of Child Study institutes were inaugurated, and these instruments used in the presence of the teachers, as suggested in the model programme, there would unquestionably be a great demand for them. It might be well for the State to provide a limited number of sets to loan, and at the same time make some provision for schools to secure sets at a moderate cost. The injury done to children having defective sight and hearing in the schools is so great and can be, in great part, so easily remedied, that it would seem as though this step scarcely needed argument for its support. Tests for the really important and common defects are simple, harmless and easily made by any person of average intelligence. It is probable that many think children will be harmed by experiments conducted by incompetent persons. There is no doubt some prejudice against the making of these tests, and the taking of measurements on that account, but it is wholly unfounded, the purpose of the test being merely to reveal gross defects in order that the teacher may send pupils to specialists for the correction of the defects. Even where the latter is not practicable, much good can be accomplished by the teachers merely being aware of the defects and seating nearsighted children near the blackboard and deaf children near the teacher.

I am firmly of the belief that a series of institutes of this kind held in New York State would not only prove the most helpful institutes to the teachers that have ever been held, but would be of the greatest service, by the way of stimulus, to the cause of education, not only in this State, but throughout the country. New York State has already assumed a position of leadership in this matter by recognizing the work in connection with the State Department. It ought now to go further and take a bolder step in the direction of leadership by carrying out the plan just outlined. If it should seem impracticable at the outset to secure a competent specialist to devote his entire time to this work, I would suggest, as a tentative arrangement, that some specialist be secured for three months, who could obtain leave of absence from his other engagements for that time in order that the experiment might be given a thorough trial. It would probably not be difficult to induce certain commissioners to accept this arrangement. In the near future the State ought to provide not only a specialist who would conduct institutes along these lines, prepare and issue syllabi and directions for work to the teachers, but also at least one additional member

of the department who should assist in institutes, conduct the office correspondence in regard to Child Study, and ultimately prepare questions bearing upon this subject for the uniform examinations and read the answers to the same. The experiment, however, could be thoroughly tested without the employment of any additional help except a specialist for three months. The total expense to the State for his salary, traveling expenses, salary of assistants, printing, etc., would undoubtedly be less than \$2,000.

I have prepared the report this year, though absent from the State, because the work having been started and organized under my charge, it was found difficult to transfer it to other as promptly as had been anticipated. In concluding this last report I wish to express my high appreciation of the earnestness and enthusiasm, as well as skill and insight, shown by Miss Anna K. Eggleston, who has had the important duty of presenting the subject to the teachers of the State. I can not refrain, either, from expressing my appreciation of the sympathy for the work shown by the head of the State Department and the generous aid continuously and cheerfully extended in the development of the work. It is a matter of keen regret to me that the acceptance of a new position in another State makes it impossible for me to carry on the work so hopefully begun.

6. ORIGINAL ARTICLES ON SPECIAL TOPICS

1. Valuable Books on Child Study, by Chauncey P. Colgrove.
2. How to Test the Senses, by Frederick W. Smedley.
3. Suggestions for Work which Can be Done by Teachers, by Frederick Eby.
4. Report on Children's Reading, by H. O. Henderson.

VALUABLE BOOKS ON CHILD STUDY*

CHAUNCEY P. COLGROVE

It is the purpose of this section to give in the most general way a brief summary of a few of the choicest books on Child Study. It is hoped that this method will be of more value to teachers who do not have access to large libraries, and can not afford to buy many books on the subject of Child Study, than an extended bibliography

*The books included in this summary are, in the order named: Donaldson's "Growth of the Brain," Preyer's "The Senses and the Will," Preyer's "Development of the Intellect," Perez's "First Three Years of Childhood," Preyer's "Infant Mind," Tracy's "Psychology of Childhood," Baldwin's "Mental Development in the Child and the Race," Sully's "Studies of Childhood," and Chamberlain's "The Child and Childhood in Folk-thought."

would be. Besides, an attractive title as often serves to conceal as to reveal the real contents of a book. It will be found that these synopses have been so chosen and arranged as to present in broad outline a fairly accurate view of what has been accomplished in Child Study and also to suggest many of the most important methods by which these results have been attained.

It will be observed that each book summarized presents some new phase or some one main department of the general subject of Child Study.

1. *The Child's Central Nervous System*

The teacher stands outside of the child's consciousness and can work on his life only by affecting that consciousness through the nervous system. No teacher or parent can become an intelligent student of child growth mentally without a good knowledge of the nature of the child's bodily development, especially the structure and functions of the brain and the nervous system as a whole. There is a more or less complete parallelism between mental phenomena and physical states, and this parallelism is more marked in the child than in the adult. Translated into physiological terms, the child's ceaseless activity is the result of abundant nutrition and consequent rapid growth. He is excitable, superficial and impulsive because his lack of nervous organization make him the slave of his physical environment. He adapts himself easily to persons and conditions because his central nervous system is plastic. His numerous questions about the relation of things is an instinctive effort to secure material to open up new channels of communication, new associative paths in the brain. His whole mental and bodily growth is a rhythmic process, or rather an interconnected series of many rhythmic processes great and small—all of which are reflected in his ever-varying moods, his alternating interests and desire for change.

One of the most valuable books on the relation of education to the nervous system is the "Growth of the Brain" by Dr. H. H. Donaldson. This book is included in the Contemporary Science Series edited by Havelock Ellis and published by Chas. Scribners' Sons.

The object of the work is to bring together in a comprehensive way the facts bearing on the growth and changes of the nervous system, such as the growth of the nervous system as compared with that of the body, the interpretation of brain weight in terms of cell structure, the peculiar relation between increase in size and in organization, the importance of the influence of nutritive condition on brain growth, the reflex nature of all nervous responses, the native characteristics of the mental powers, and the comparative insignificance of formal education.

From anatomy we learn that cells are the units by the production of which the growing animal is formed, and all these cells are the lineal descendants of the ovum, which, in its first form, is but a single cell. The conception of the animal as composed of a number of cells was at first accompanied by the idea that the cells themselves were comparatively simple. But the fact is that, if the organism as a whole is highly specialized, it is due to the fact that the constituent cells are also specialized; so that in the animal series progressive specialization may be expressed either in terms of the entire animal or in terms of its structural elements. The complex animal when formed is composed of groups of cells constituting organs. There are two ways in which an organ may increase in size, (1) by the increase of the number of cells composing it; (2) by an increase in the size of the cells. Any active cell having reached a point at which it no longer divides, grows larger, variations in structure appear, the shape alters, and accompanying all these modifications is a steady change in chemical constitution.

Brain growth is directly influenced by the growth of the entire body. The cells of the brain are not closely connected with each other at birth, but under the influence of the impressions received from the outer world, the prolongations of the cells rapidly extend and unite, thus forming more and more intricate paths of communication throughout the entire central nervous system. The influences affecting the child as an organism from without are expressed by the term environment while from within there is the complex of influences called heredity.

On the physiological side it is shown that although the cells are fed by the same nutrient lymph they are structurally modified in such a manner that they are suited to the performance of different functions. The nerve cell is a source of energy, and the manner in which this energy is manifested in nervous reactions should be plain to every teacher and parent. All reactions induce fatigue, and fatigue must be followed by repose which permits recuperation. In this rhythm of fatigue and recovery there are wide individual variations through which we get a glimpse of the child's temperament. In the growth of the child there are rhythms to correspond to the seasons of the year the month, the day. The stature, the weight of the body, and the muscular strength vary at different periods of the day. There are three periods of digestion and absorption corresponding to the three meals, and connected with these are changes in the circulation, heat production, emotional and mental activity. There are also the shorter rhythms of heart beat and respiration. So that while in popular estimation the organism is looked upon as subject to little change, yet, as a matter of fact the variations in the organism play a more important role than the changes in the child's outer condition or environment.

Upon these anatomical and physiological facts are based the fundamental principles of education. On its neurological side education consists in modification of the central nervous system. The cell elements are plastic, in the sense that their connections are not rigidly fixed, and they also tend to repeat previous reactions. By reason of these powers the cells can both adjust themselves to new conditions and also learn to respond with great precision and celerity to familiar impulses. At birth all the cells destined to compose the central nervous system are already formed. In the development of the central system it is found that an anatomical framework is first formed in which are represented, in outline, the nerve structure whose functions are most fundamental. With later growth these functions are locally strengthened and organized, and by the establishment of associative paths gain both a wide influence and greater complexity of reaction. At three years of age the history of future organization in the central nervous system of the child has been determined in its broad outlines by the first arrangement of the cells.

The education of the schools is only one of many surrounding conditions influencing growth, and can not produce any fundamental changes in the nervous organization; but it can strengthen formed structures by exercise and waken into activity the unorganized remnant of dormant cells. By strengthening the formed cells their powers of reaction, of organic memory, and of resistance to fatigue are increased. By associating given sets of muscular reactives with given sense impressions, habits are formed in consequence of further organization among the nerve elements. In all functional activities a tendency to the formation of habits exists. With habits come rhythms of activity, and training may be so adjusted to these rhythms as to catch the system at the most favorable moments for mental work. Any lack in the early experience of the child may leave a spot in the central nervous system undeveloped, and this will always remain a hindrance to the child's mental growth. A many-sided interest is requisite to arouse into activity all the dormant cells, and the whole process of education must be carefully adapted to meet the needs of the child's successively ripening mental powers under the influence of heredity.

To rouse an interest in the formal exercise of the school has always been the difficult task for the teacher. From the physiological side that which rouses the interest of the child tends to quicken his pulse and to cause a full blood supply to the entire central system. Those conditions favoring the best mental activity of the child can be successfully met only by that teacher who possesses a subtle sympathy with the child, a sympathy which in one way or another discovers the growing point in the child and fits the instruction of the school to the present needs of the individual pupil.

That mental activity is accompanied by nervous changes is a familiar idea, and let the explanation of this be as it may, the fact remains that the phenomena of consciousness are exalted or depressed by purely physical conditions. To understand these physical conditions, to be familiar with the road through which we reach the child's mind, to take advantage of the child's ripening power and know how to supply the right stimuli at the right time, to guard the child against fatigue and waste of mental power, and to enable him to do his mental work under the best possible physical conditions is prime wisdom on the part of the teacher.

2. *The Development of the Child's Senses*

The teacher who carefully reads Preyer's book, "The Senses and the Will," No. 7 in Appleton's International Education Series, will be able to formulate a method by which to continue the work of observation on the development of the child's senses which the author carries through the first three years of childhood.

Method is necessary for the intelligent observation of anything. It converts the endless trains of facts brought to us by experience into science, by which isolated facts are related. When we fix the order of succession, the date, the duration, the locality, the environment, the extent of the sphere of influence, number of manifestations and number of cases of intermittence, we have exact knowledge of a phenomenon. Parents and teachers are directly interested in the order of the development of the soul from its lower functions into its higher ones. Preyer's comparison between the steps of progress in the child and those of the young of lower animals are a valuable feature of his book. The facts are given in the form of a diary, regularly kept, concerning the sense-development of a child for the first three years of life. The supreme interest to us in these observations is the child's development from lower degrees of intelligence to higher ones. The infant is presented to our view in the process of gaining command over himself. His sense-organs gradually become available for perception and his muscles are brought under control of his will. Each new acquisition becomes, in turn, an instrument of new and greater progress.

Laying great stress upon heredity, Preyer maintains that the child's mind at birth is far from being a *tabula rasa* upon which the senses first write their impressions, but that the tablet is already written upon before birth, and he states that the purpose of his book is to decipher the mysterious writing in the mind of the child.

In the introduction to the American edition, G. Stanley Hall says that teachers as a rule do not study the nature of the children

they instruct, (1) because they too often view their business as not to unfold but to instruct simply, or to infuse set courses or sums of information, (2) many think they have all the knowledge of childhood they require from memory of their own childish years, (3) others think a course in a text-book in psychology supplies all that is needed. The living, playing, learning child whose soul heredity has freighted so richly from a past we know not how remote, on whose right development all good causes in the world depend, embodies a truly elementary psychology. Among the many studies of young children, Preyer's work is the best example of the inductive method applied to the study of child psychology.

The activity of the senses forms the foundation of all mental growth. Every sense-activity is four-fold in its character, (1) stimulation of the nerves, (2) sensation, (3) perception, (4) idea. Preyer's observations on the sense of sight include the following points; the child's sensibility to light, discrimination of colors, movements of the eyelids and eyes, direction of the look, seeing of near and distant objects, and the interpretation of what is seen. All the other senses are treated with equal care.

Some of the results attained in regard to sight are, (1) the child can not see in the proper meaning of the word during the first weeks, (2) the discrimination of colors is in the first months exceedingly imperfect. The first colors to be rightly named are, yellow and red.* The child of one year old probably perceives green and blue almost as gray. (3) the infant's eye movements are not co-ordinated (4) the distinct seeing of an object is slowly developed, but the longest delay of all in the child is the development of the ability to interpret what is seen, (5) the estimate of distance, the perception of the third dimension, and the establishment of a relation between the impressions of sight and those of touch are slow processes and are not perfected for years. All these facts prove that there does not exist in the infant a ready-made, inborn mechanism to be set in regular activity by impressions of light; but that the impressions themselves really develop the inherited mechanism of sight which is incomplete at birth. The foundations only are innate, not the entire apparatus. From the time of birth, man learns to see better day by day, and even in later life he can by practice vastly improve his power of sight.

A summary of the results in regard to the other senses will not be attempted here. But from what has been given in regard to sight we gain a clearer view of the very complex process of really seeing things. There is no doubt that much of the work in

*Other experimenters obtain different results, notably Baldwin; but his method is criticised by Sully.

the schools, given to train the senses, is very superficial, because the teacher does not understand what is implied in observation. The reading of such a book as Preyer's is a most valuable aid in mastering the subtle art of teaching through object lessons.

3. *The Development of the Intellect*

The third part of Professor Preyer's work, vol. IX of the International Series, treats of the development of the child's intellect. The first effect of the feelings and sensations which the child receives at the beginning of life is the association of their traces, left behind in the central nervous system, with inborn movements. Out of these traces, or central impressions, is gradually developed the personal memory. Without memory no intellect is possible. The only material at the disposal of the intellect is received from the senses, and has been provided solely out of sensations. A sensation in itself alone can not be the object of any intellectual operation. In order to make such activity possible there must be two unlike or unequal sensations, for only so can the lowest activity of the intellect, comparison, operate. But the sensations that are to be compared can not exist in the mind at exactly the same time, so that there must be memory before there can be comparison. A complete exposition of the normal intellectual development would comprise two stages; (1) the combination of sensuous impressions into perceptions, that is, the sensation is co-ordinated in space and time, and (2) the combination of perceptions into ideas and concepts. Preyer does not attempt to give any such complete exposition, but confines himself to observations on three lines, (1) the non-dependence of the child's intellect upon language, (2) the acquirement of speech, (3) the development of the feeling of self. He considers that the growth of the power of using language is the most prominent index to the unfolding of the intellect, and he maintains that his observations prove that concepts are formed and reasoning processes are carried on long before the child's speech is developed.

Studied from the point of view indicated above, the book will not be disappointing, yet perhaps, as Dr. Harris suggests, the most important feature of the book is the full and careful conspectus, prepared by the translator, showing the results of Preyer's observations in a chronological order arranged by months. This enables the reader to see at a glance the items of development of the child under the different heads and epochs and furnishes a suggestive plan for making observations of children and recording the results. As a work on the origin and development of speech in the child, the book is invaluable.

4. *The Growth of Emotion in the Child*

Preyer's books are written from the standpoint of the naturalist, but in "the First Three Years of Childhood," by Perez, we have observations on the child from the point of view of the psychologist. Although the work of Perez is quite general in its nature, including in its scope the development — of the senses, intellect and will, yet he traces more fully than Preyer does the growth of the emotions, and it is to this feature of his book that special attention is called. Another important difference as to method is brought out in the book of Perez. Preyer's observations are confined to one child, and as children differ so greatly in individuality, the record of no one child can be regarded as a typical one. Perez, on the other hand, presents us with a wide variety of child-character and gives us a general average of results. Of course each method has its advantages and the two supplement each other, so that it will be found profitable to read the works of the two authors in connection.

Perez sees more in the infant than a mere machine or only a little animal. He thinks the moral sense appears in the child as early as the sixth or seventh month. Pleasure and pain, especially as connected with taste, are the dominant feelings of the child during the first few months, but fear, which Preyer says is one of the mightiest teachers of childhood, and anger are also present. There is a natural fear, both organic and hereditary, which is a safeguard to the infant against certain very real dangers of which it has not yet had any experience, and such fears are excited more through auditory than through visual impressions.

Anger is the child's instinctive reaction against pain. Moreover, since the child passes through, in a general way, the experience and development of the race, we shall expect to find in him that irritability and impulsiveness which are found in all inferior races, and which the child has inherited from his primitive ancestors. Anger is legitimate in the child when it is the unconscious revolt against the first sufferings of life or when it is a reaction against the capricious and arbitrary methods of control of those who have the care of him, but it has its abuses as well as its uses and should be early and carefully directed and brought under control.

The child's love of animals and his love of human beings is early developed, and, in fact, it may be stated as certain that his feelings and emotions are the first of all physical events to appear with definiteness, and that they determine the behavior of the child. They are expressed before there is any sure sign of will or memory or judgment, and through repetition of feelings, opposed in character, are gradually unfolded memory, power of abstraction, judgment, and reasoning.

The child's aesthetic sense is developed out of his likings. What he loves is pretty, but his ideas of the beautiful are incomplete and variable. The sense of proportion and harmony, which are intellectual perceptions, is developed but slowly.

In so far as the moral sense is hereditary it springs out of the personal feeling of children. Moral law is for them embodied in their parents, especially the mother. Good is what is permitted; evil, what is forbidden. The moral sense is one of the hereditary faculties most susceptible to training and most liable to be modified by circumstances, yet it is almost needless to add that morality in the child is an edifice built up at the cost of great labor, patience and prudence. The moral sense simply furnishes the more or less conscious will with motives. The business of psychological teachers is much more concerned with the habits that children may acquire, and with their wills, which are also developed by habitual practice, than with the development of their moral conscience. The latter is the blossom which will be followed by fruit; but the former are the roots and branches.

5. Development of Will

In the second part of Vol. VII, and in chap. V, Vol. XXIV of the International Series, Preyer gives the results of his observations on the development of the child's will. How to influence the child's will is such a fundamental problem in pedagogy, and Preyer's handling of the topic is so suggestive, that many teachers have, no doubt, found his treatment of this subject to be the most valuable part of his works. Only a few of his leading thoughts can be suggested here.

The human will is the greatest power on earth. A man's career in life is determined more by his own will than by accidental circumstances or environment. Hence it is of fundamental importance for everyone to know how the will originates, is developed and is perfected.

The child is born without a will, but the will does not originate out of nothing, nor does it originate in desire, as the psychologists have generally taught. In order to discover the origin of will in the child, we must know how will may be recognized. The only sign of will is muscular movement. It is by movements solely that the child can manifest his will, yet he makes lively movements before he has a will. We must, therefore, look for the causes of these movements, and inquire into the difference between movements that are willed and those that are not willed. Now, the causes of movements that lead gradually to the development of the child's will are ideas, and first of all ideas of movements. But back of ideas are perceptions, and perceptions are formed out of sensations.

The will, then, is developed out of ideational movements, as opposed to impulsive, reflex and instinctive movements, and imitative movements are the lowest form of ideational movements. In order that the child may practice definite imitations he must have definite sensations, perceptions, ideas, and to furnish these is the most important work of the parent and the teacher. On the forming of the will depends almost everything in early education. It is only at the beginning that the will is easily directed, and in order to direct it one must control the motor ideas of the child. This control is not acquired through strict prohibitions and commands, the reason of which the child is incapable of comprehending. External sense-impressions arouse motor ideas, which have, as a consequence, definite movements. These are the willed, the deliberate movements; for, although the will can alter existing movements, isolate them one from another, combine them for an act, repeat, strengthen and weaken, hasten and retard them, still willing is nothing ultimately but the reciprocal action of motor ideas. And lastly, physiological education rests chiefly upon the central nervous system, and every attempt to direct the child's will into right ways remains fruitless unless the health of the brain remains unimpaired.

6. *Results of Child Study Summarized*

The object of Tracy's "Psychology of Childhood," is to present as concisely, yet as completely as possible, the results of the systematic study of children up to date. The author attempts to answer such questions as when and how mental phenomena take their rise in the infant consciousness, how far such phenomena are conditioned by heredity and how far by education, what the nature of the process is by which the automatic and mechanical pass over into the conscious and voluntary.

In his treatment of the subject, Dr. Tracy has used the genetic method, and one chapter each is devoted to sensation, emotion, intellect and volition. The chapter on language may be considered as an addition to the main work. Under "sources of information," quite an extensive bibliography* of works on Child Study is given.

By far the larger number of references and quotations are from French and German authorities. In the chapter on sensation there are 72 references by name to foreign authors, as Perez, Preyer, Kussmaul and only about 20 to English and American authorities.

The appropriateness of the term "Psychology of Childhood," as a title for the book may be questioned, unless we are to understand the term childhood in a very narrow sense. Taking, for example, the chapter on emotion, we find over 80 references to children's

*A very suggestive bibliography of the literature on the subject of Child Study is given in the Report of the State Superintendent of Public Instruction for 1896, p. 1031.

ages, only 10 of which refer to children over 2 years old. In view of this fact, it would seem that the book should have been entitled "Infant Psychology."

The most valuable features of the book are (1) the light which it throws on the order of the development of the child's mental powers, (2) the development of voluntary action, (3) the statement and treatment of the principle of transformation.

1. It is assumed that the child comes into the world with an idea of space and the possibility of localizing certain touch sensations. He is also capable of taste perceptions at birth, and perceptions of sight have been noted in some children as early as the second month. The child associates concrete objects during the second month, and from the fifth to the tenth month his growth in power of association is very rapid. He also shows signs of a physiological memory as early as the second month, and this increases greatly in power from the sixth to the ninth month. Mental images are formed by some children as early as the sixth month, but psychological memory can not be said to develop fully till about the time that children begin to use language.

Passive imagination is present before the second month of life, is plainly marked at the third month, and develops more and more as the memory grows stronger.

Although the child forms concepts as early as the sixth month, his power of reasoning does not fully appear until he can use language. Acts indicating judgment are observed as early as the sixth month, and become very well marked between nine and twelve months of age. Reasoning proper occurs during the fourth month, is well marked at eight months, and ten months later is very active. From this stage it is usually assisted by language and develops rapidly.

2. Tracy adopts Preyer's classification of the child's movements. He thinks the term "active" should be reserved for ideational movements alone, and actions should be classified as imitative acts, expressive acts, and deliberative acts. It is mainly in connection with this part of the book that the author develops the important principle of "transformation."

3. The statement of this principle is as follows: "Every mental phenomenon passes through a graduated ascending series of development." At first the physiological element predominates, consciousness is at a minimum, and the so-called mental phenomenon would be more accurately defined as the reaction of the nervous system to external stimuli or to organic conditions. Later the mental element gradually becomes more prominent, and when the intellect and the will have become sufficiently developed, the child directs his attention to the act, makes it his own, and performs it voluntarily. The process perhaps has not changed at all, to outward

appearance, but when viewed on the inner side, it is seen to have been completely transformed in character; and one of the most difficult tasks for the psychologist is to determine the when and the how of this transformation. This principle appears in all the facts noted under sensation, for sensations tend to become more and more active states, thus leading on to real perception. The same thing is also seen in the growth of the emotions and the intellect, but the law is best shown in the chapter on volition. Tracy claims that the will is the cause and not the effect of the transformation of mere reflex and instinctive movements into voluntary acts. The book is a strong reminder that the old "faculty psychology" is passing away, that even in infancy the so-called powers of the mind are all present and all develop together, that the consciousness of the child is a unit — one undivided, organic whole. The child itself is the only true basis for the correlation of studies.

7. The Child as Imitator

Baldwin's *Mental Development in the Child and the Race*, is a notable attempt to work out a theory of mental development in the child from the standpoint of the genetic function of imitation and its relation to volition. But since the mental development of every individual must recapitulate in its essential phases the evolution of mind in the race, a doctrine of race-development must precede any theory of mental development in the individual. The author aspires, therefore, to construct a genetic psychology for both the race and the individual.

The first six chapters give results of the author's observation and study of children, showing many new and interesting facts concerning children's movements, and suggesting many valuable points on methods of studying children and the principles of interpreting the results of such study. The facts brought out in these observations are used to build up a theory of mental development in the child based on imitation.

It should be stated, perhaps, in this connection that Prof. Baldwin's sweeping criticisms of "unscientific" Child Study will be apt to discourage the young teacher from making any beginning in the work. When he says, "Judging from the results of such Child Study, science had better wait till competent psychologists study children for themselves," he forgets apparently that few teachers become "competent psychologists" without some study of the child, that the sympathetic insight into child nature is as essential to the observer of the child as is the scientific spirit, and that in the great majority of cases the chief value of Child Study to the teacher is a purely personal matter — an essential qualification for live teaching. So able a critic as Sully* says that Prof. Baldwin has

*Studies of Childhood, p. 12.

curiously overlooked the difficulties of rightly interpreting the simple manifestations of mind, and that he talks of Child Study as a perfectly simple mode of observation, requiring at most to be supplemented by a little experiment backed by a firm theory.

That this criticism is a little overdone will appear in what follows.

Prof. Baldwin says that experiments on children can not be avoided. Every time we send a child out of the home to the school, we subject him to experiment of the most serious and alarming kind. He goes into the hands of a teacher who may be both unwise and unpsychological — only a machine for forcing the same experiment on fifty different varieties of children. The only way to study a child's mind is to study its expression — facial, vocal, muscular. The first question is, "What did the child do?" and the second and harder question is, "What did his doing that mean?" To form a true picture of the real mental condition lying back of the child's responses and expressions is the important thing in Child Study, and this difficulty is greater the more complex the child's mental processes become. It is only when we catch the motor response to a sensation in its simplicity that it becomes a true index to the sensory stimulus which produced it.

Various arguments are given to prove that the infants' hand movements in reaching and grasping are the best index of the kind and intensity of its sensory experiences. The principle underlying this method of studying the child's mind through the movements of his arm and hand is the so-called "law" of dynamogenesis, i. e., just as all stimulatives to living matter tend to produce movements in the mass of the organism, so in the phenomena of consciousness, every sensation, or incoming process, tends to bring about action, or outgoing process. The principal applications of this method are to children's drawings, tracery imitation, and handwriting, although various other applications are suggested.

In explaining the origin of children's movements, very much is made of the law of suggestion, and various kinds of suggestion are distinguished, such as (1) Physiological suggestion, (2) Sensori-motor, including general suggestions as to food, sleep, clothing, etc., suggestions of personality, and deliberative suggestions, and (3) Ideo-motor suggestion, under which falls imitation.

Biological, or organic, imitation is found wherever there is organism and environment. It is, at the same time, a new adaptation to any sort of stimulation and the beginning of a habit or tendency to get that sort of stimulation again. It forms the physical basis of memory and association, and is the point where "short-cuts" are developed by which the child is enabled to cover rapidly the slow progress of the race. Imitation may have for its impelling force instinct, reflex action, suggestion, or volition. It may thus

be conscious or unconscious, simple or persistent. In a simple imitation the child does not try to improve by making a second attempt, but in persistent imitation the child seeks through repetition to improve his imitations. His movements, however, are not mere repetitions. The same reaction is not repeated. He detects differences between what he sees and hears and what he produces by hand or tongue, and these differences he seeks to reduce by altering and adapting his movements. He will persist, in spite of pain, till he succeeds. No pleasure-theory of effort will explain the fact. The instinct to imitate is a part of the child. It binds him to the race and is his chief legacy from the race, for out of it have grown intellect, emotion and will.

An important feature of the work is its bearing on the much-discussed "culture-epoch" theory. The development of consciousness keeps pace with that of the physical organism in the individual and in the race. The individual in embryonic form passes through the stages which represent morphologically the stages actually found in the ancestral animal series, but it must not be inferred that the child, either before or after birth, must repeat all the crude bodily forms and blind intellectual gropings of his ancestors. From any such bondage he is delivered by the ever potent law of organic imitation, i. e., the omission in the future descendants of certain elements or stages which were necessary in the progress of the race, thus multiplying "short-cuts" in the child's development and education. Any "culture-epoch" theory that neglects this great fact is sheer nonsense.

8. *The Child as Creator*

Sully's *Studies of Childhood*, D. Appleton & Co., 1896, is one of the newest and most important works on Child Study. Professor Baldwin has reduced the child to an imitator; Sully has emphasized his inventive and creative power — his divine gift of imagination.

In the "introduction" it is suggested that the increased modern interest in the child is three-fold, aesthetic or artistic, scientific, and educational. The pages of our modern literature are full of our child-love and our child-admiration. The scientist now finds in the child one of the most eloquent of nature's phenomena, revealing at once our affinity to the animal world and the forces by which our race has lifted itself to its present exalted position. The teacher, also, has come to see that a clear insight into child-nature and its spontaneous movements must precede any intelligent attempt to work beneficially upon this nature, and he has betaken himself to the psychologist in order to discover more of the native tendencies and the governing laws of that unformed child-mind which it is

his in a special manner to form. This lively interest in the child has led to careful observation bearing on such points as children's questions, first thoughts about nature, and early manifestations of sense and reason.

This work of observation, if it is to be an aid to science, must itself be scientific — must be the result of a sympathetic insight, the offspring of child-love, perfected by scientific training. So-called theories of children's mental activity are often only hasty generalizations from imperfect observation. What is most needed at present in Child Study is more patient, intelligent studies, like Preyer's, of individual children of different sexes, temperaments, and nationalities. We are wont to talk rather too glibly about that abstraction, "the child," as if all children correspond to one pattern, of which pattern we have a certain knowledge.

The subjects treated by Professor Sully are very attractive, but in this summary only the chapters which deal with the child's creative powers are included. These chapters are selected because they form a most excellent set-off to Baldwin's over-emphasis of imitation in the child.

The child is not purely a dreamer, decking out the world yet unknown to him with gay colors; most children are at once matter-of-fact observers and dreamers, and they manage to combine great vivacity and force of imagination with a perfectly grave and practical lookout on the actual world. A prodigal fancy and the revelling in myth and story are often characteristic of one period of childhood only, not a common quality of the child in the abstract during the whole period of childhood. Besides the imaginative life of children differs greatly; one lives in a world of colors or sounds, another in a world of movements. The prevailing imagery of one is visual, of another auditory. Imagination is also bound up with temperament and feeling, and it will assume as many different directions as this life of the child assumes. It is, therefore, a variable power, requiring a special study in the case of each child, and we are still very far from knowing, in spite of the confident assertions to the contrary, just the precise meaning of children's play, their make-believe, their dreams and illusions.

The imaginative side is, perhaps, the most delightful side of child-life and has a very great deal to do with his first crude attempts to understand things, and moral instruction should follow carefully in the various lines of the child's imaginative activity.

In the sphere of sense observation the play of imagination is seen in the child's transformation of objects, as when he calls the dew-drops "tears on the grass," or butterflies "flying pansies," or a pot of ferns a "pot of green feathers." Sense and imagination are not wholly apart. Imagination in an active constructive form takes part in the very making of what we call sense experience. The

child reads each visual symbol of stone or flower or bird because imagination, drawing upon past experience, supplies the interpretation of each separate group of sensations.

But his imagination carries him still further. He gives to stream and flower and cloud a soul, so that what is lifeless and soulless to us, to him is alive and conscious. This vitalizing and personifying instinct is one of the chief manifestations of childish fancy.

Another way in which imagination may combine with and transform sensible objects is by association. A child's feeling for likeness is commonly keen and subtle, and his imagination may alter the world of sense in ways which it is hard for our stiff-jointed minds to follow. This is seen in his play which is the working out in visible shape of an inner fancy. Here imagination colors the child's sense perceptions. There is a kind of reciprocal action between sense and imagination.

The source of play is the impulse to realize a bright idea. This image is the dominating force, and since it must be acted out, it comes into collision and reaction with the child's actual surroundings. Thus the fundamental impulse of play is the desire to act a part, and grows out of the imaginative and assimilative instinct.

Under the influence of this impulse the child transforms not only objects, but itself, and becomes another person or animal. He invents imaginary surroundings and creates mythical companions. With the magic power of imagination he changes his inert toys into objects of life and love, and this is truly a reality to the child, reaching the intensity of play-illusion.

Play is instinctive activity, but it is not merely imitative; it is a bright invention into which all the gifts of childish intelligence may pour themselves.

The fact that imagination derives support from sense leads the child to project his fancies and give them a local habitation in the external world. He fills the woods with strange creatures and the sky with fairy shapes. Beyond the visible hills of his horizon are wonderful countries peopled by all manner of fantastic beings.

When the child has acquired the use of language he is prepared to enter story land. To him the words of a story are not dead thought-symbols, but are truly alive. Words as sense presentations have a powerful suggestive effect on children's imaginations, calling up vivid images of the objects named. On reading the Pilgrim's Progress through the second time to my two little boys 6 and 8 years of age, I frequently changed or omitted certain details of the story to test them, and in nearly every case the slightest change was instantly detected by my listeners who would eagerly tell me "how it was before." The educational possibilities of myth and story are only just beginning to be realized.

To this lively imaginative reception of what is told or read to him, the child is apt very soon to join his own free invention, and his fancies find expression in child art. Children's drawings, like those of primitive man are a kind of rude embryonic art. His first attempts are a kind of play, and being the outcome of his instinctive love of finding and producing the semblance of things, are closely connected with his imaginative power.

But although in order to complete even this meager summary of Prof. Sully's presentation of the "child as creator," a fuller review of his chapters on the "child as artist" and the "young draughtsman" is necessary, we must pass them by. Enough has been given to show that the author has placed great emphasis on the inventive, the creative, powers of the child. We are not to view the imagination as a general faculty, much less an independent one, but as suggested by Dr. Dewey, it is a power of realization, a power to image. It is present in sense observation, perception, memory and thinking. It is involved in all the assimilative operations of the mind and is thus the basis of apperception and the sole internal instrument of instruction.

9. *The Child as Teacher of the Race*

The Child and Childhood in Folk-Thought, is a new work (1896). The author, A. F. Chamberlain, Ph. D., is Lecturer on Anthropology in Clark University.

The book is an attempt to indicate some of the chief child-activities among primitive peoples and to point out their survivals in the social institutions and culture movements of to-day.

The first chapter is entitled "Child Study," and begins with Dr. Hall's saying, "Oneness with nature is the glory of childhood; oneness with childhood is the glory of the teacher." The province of him who studies the child is indeed vast. There is the field of Somatology, in which the student of the child seeks to understand the nature of the physical characteristics and constitution of the body. In Philology he endeavors to discover the essence and import of those vocal sounds, so feeble and unintelligible at first, which have developed into the orations of a Webster or the poems of a Tennyson. In Art he would fathom the depth of those rude scribblings and crude drawings whence have evolved the alphabet and all the marvellous works of a Rubens and an Angelo. In Psychology he seeks to trace in childish prattlings and nursery lore the beginnings of mythology, philosophy and religion. Ethnology, with its broad sweep over ages and races of men, suggests that in the growth of the child from helpless infancy to manhood, we have an epitome in miniature of the life of the race. And still another field of Child Study well worthy of our attention is that which sheds light upon some of the dark places in pedagogical

science and the art of education. So that the laboratory for research work in Child Study has been the whole wide world, and the experimenters are the people of all ages and all countries—fathers and mothers, teachers and philosophers—and the subjects have been the children of all the generations of mankind.

We may, therefore, fairly assume that the "Child in Folk-Thought"—what tribe after tribe, age after age, has thought about, ascribed to, dreamt of, learned from, taught to the child, can bring to the harvest of pedagogy many a golden sheaf.

The touch of the child is upon language, sociology, art and religion, and the debt of humanity to the little children has not yet been told. They have figured in the world's history as priests, leaders and teachers, as judges, saints and heroes, as inventors, musicians and poets.

The chief value of this unique work is to give the reader an inspiration to regard the child as well worthy of study, to indicate the importance of the child in the onward march of civilization, to help one estimate the influence which the child-idea has exerted upon mankind. The book is written by one who is in full sympathy with the thought expressed by Jean Paul Richter, "I love God and every little child."

Some of the most suggestive topics are the "Bright Side of Child Life," "Child Life and Education in General," "The Child as Linguist," "The Child's Tribute to the Mother," "The Child in the Primitive Laboratory," and the "Christ Child." The work also contains some 400 sayings and proverbs in regard to children and parents; also a valuable bibliography on Child Study.

As teachers and psychologists take a deeper and more sympathetic view of the modern child, their view of the primitive child is also broadened. It is probable that the children of primitive man, while their childhood lasted, were the equals, if not the superiors, of our own, so far as general intellectual capacity is concerned.

The primitive child, as language and folk-lore demonstrate, has been weighed, measured and tested physically and mentally by his elders, much as we ourselves are doing now. Everywhere the race has had, in some form, its schools and colleges, and the activities of the child have always been appealed to, and the race has wonderfully profited by the child's simple wisdom, genuineness, enthusiasm and touch of divinity. In all ages and among all peoples the influence of childhood has been unconscious, suggestive, creative.

Motherhood and childhood have been the world's great teachers, and the prayer of all the race should be:

"Let not the cultured years make less
The childhood charm of tenderness."

HOW TO TEST THE SENSES

FREDERICK W. SMEDLEY

The following simple directions are intended to help teachers who wish to test the acuteness of their pupils' senses. The first experiments made by a teacher may not have sufficient accuracy to allow of trustworthy scientific generalizations being made from them; yet any careful work will help a teacher in understanding the working of the senses, and very little practice will at least enable one to recognize all gross sensory defects.

The importance of the teacher's having definite knowledge of the acuteness of the senses of each pupil will be recognized when we consider that she can reach the child's mind only through the senses. They are the keys on which she plays, "the gates to the city of Mansoul," Bunyan was pleased to call them. Through the senses come the pleasures of the world. What a dull world this must be to the one who is color-blind and sees things only in shades of gray! The charms of music are lost to one who can not distinguish tone, and so every sensory defect shuts out pleasures. But a sensory defect does more; it changes the entire mental growth and make-up of a child. Not only are perceptions gained through defective senses likely to be defective in themselves, but a knowledge built on these perceptions is likely to be defective also. A teacher, knowing of a defect in any of the senses of a child, may adopt means necessary for its correction, or at least reduce its evil effects to the minimum. Thus a child with defective vision may be provided with spectacles, or at least be given a front seat, with good light. Knowing the acuity of the senses of the different pupils, the teacher will better know what impression a given stimulus is likely to produce. In fact the great benefit of Child Study is that the teacher shall better know the child, better understand his needs, and so be the better able to provide for them.

In making all sensory measurements it must be remembered that the result will be affected by the attention given by the subject tested. Expectancy always tends to increase the acuteness of the perception. The state of health and especially the condition of fatigue will vary the results. In fact, almost any of the sensory tests may be used for measuring the amount of fatigue. Taking the measurement while the subject is fresh, and then again after prolonged exertion on his part, the difference will show the amount of fatigue.

Besides the affections of the sense organs themselves, most other diseases, especially nervous diseases, are likely to affect the acuteness of the senses. An incipient headache will often derange vision. Most fevers cause a disordered taste. Scarlet fever is especially likely to affect the hearing and sight, often permanently. The same

is true of measles, diphtheria and Bright's disease. At times, too, certain diseases seem to temporarily increase the acuity of the senses. These varying conditions must be borne in mind when taking the sensory measurements and in drawing conclusions from the results.

There are two general classes of these sensory tests. One depends upon the fact that no sensation is felt until the stimulus has reached a certain degree of intensity. The amount of stimulus necessary to reach the threshold of sensation may be taken as a basis for comparing the acuteness of the senses. The greater the stimulus necessary to reach the threshold of sensation the less acute the sense.

In the other class of tests the power of discrimination is tested by ascertaining the amount that must be added to a given stimulus to produce a just observable difference in sensation.

The power of discrimination of the intensity of sensations is capable of being educated, and so, usually, will be found to increase in children with age.

Sight

Sight is the sense most appealed to in school work, so clearness and accuracy of visual perception is of great importance. Visual acuity may be measured by means of the large black letters upon a white surface. These test types may be had from any dealer in oculist's supplies. The number accompanying each line of letters shows the distance at which those letters may be read by one whose visual power is normal. Where a number of persons are to be tested it will expedite matters to mark off the floor to correspond to these numbers. In testing a subject the letters should be placed in a good light squarely before him. He should be placed at the greatest available distance, should close one eye and advance until he can make out the largest letters. Let him read them aloud. Notice any errors he may make. Then let the subject advance until he can read the next line, etc. His visual acuity at any point will be represented by the distance at which he can read a line of letters divided by the normal distance for reading that line. If he can read a line at 25 feet, which normally is read at 20 feet, his visual acuity is above normal and would be represented by this formula $V = \frac{25}{20}$, or, expressed decimally, 1.25. One eye should be tested at a time, as the two eyes are seldom exact mates, and a person generally can see much better with both eyes than with either separately. Some persons will be found whose visual acuity is far above normal. Ordinarily, if the vision is normal or above normal in acuity, it may be assumed that the sight is not defective.

A person may fail to make out the test letters from abnormal focal conditions or from want of transparency of the media of the eye, as well as from deficient perceptive power. Abnormal focal conditions can usually be remedied by spectacles.

Sometimes the eye does not bring the rays of light to a correct focus. In some cases, the distance from the front to the rear of the eye is too great or there is an excess in the refractive power of the eye. This produces myopia, or short-sightedness. This is a serious defect of the eye and is often produced by school life. Then there is the opposite condition producing hyperopia. The majority of weak eyes are hyperopic. These conditions are revealed by the way in which a book is held in reading. Sometimes there is an irregularity in the curve of the surfaces of the refracting media. This produces astigmatism. There is a slight normal astigmatism. Astigmatism is usually tested by radiating lines of the same shade and size. Some of these will look much blacker and clearer to the astigmatic eye than will the others.

Total color blindness is very rare. The inability to distinguish reds and greens is more common.

The test is usually made by means of skeins of worsted of different colors and shades, which are spread out on a table before the subject. First a light green skein of pure tint is placed a few feet from him and he is asked to select skeins to match this. A color-blind person is likely to select grays, or drabs, or browns, as resembling the green test skein.

Next the rose-colored skein is placed before him. The red-blind will see only the blue in it and will match it with blues. The green-blind will select greens.

Then the red skein is placed before him. The color-blind person selects to match it brown or green tints, the red-blind person selecting dark shades of green to match the red skein and the green-blind person selecting the dark shades of red and light shades of green.

A rough comparison of the visual powers may be made by pinning the large letters from an advertisement on the wall and allowing the pupils to arrange themselves in the room at the greatest distance at which they can barely read the letters. Those who must stand near to the letters to read them should be given front seats.

Hearing

In testing hearing a large room should be selected as free as possible from surrounding noises. No accurate acoumeter has yet been invented. Hearing is usually tested with a watch, one whose ticking can be started and stopped at pleasure is to be preferred. With

one ear stopped with cotton or with the tragus pressed in firmly, a watch held on a level with the other ear is slowly brought toward the subject until it can be heard. Then it is carried away until it passes out of hearing. The distance at which the watch can barely be heard gives the range which will form the basis for comparison. All measurements that are to be compared should be taken with the same watch as watches differ in the degree of the loudness of their ticking. The watch should be heard at a distance of from two to ten meters. The loudness of the tick of the watch and the amount of noise present must both be taken into consideration in determining the acuity of the hearing.

A rough comparison of the acuteness of hearing may be made by placing the children in the back part of a large room and dictating slowly and carefully and in a low tone of voice, numbers and words for them to write. The papers will show the errors which have probably come from defective hearing. While such a test may leave room for error yet it is a fact that in one respect it is better than the more accurate one as the ability to hear a watch tick does not always run parallel to the ability to hear the human voice.

Skin Sensations

The simplest measurement of the sensitivity of the skin to pressure is by means of small weights made of cork or layers of cardboard glued together. These weights should all have the same sized base, so that each shall rest upon the same area of skin. A base five millimeters square is the size commonly employed. If each of these weights be attached by a short silk fiber or thread to a small stick, they may be handled like fish poles and a very convenient form of these initial weights will be had. The weights may run from one to fifty milligrams. The more closely they are graded the more accurate will be the tests. The measurement on a given portion of the skin is taken by having the subject close his eyes, beginning with a weight too light to be felt placed carefully upon the skin. Then substituting one heavier and heavier until a weight is reached whose presence on the skin can be felt by the subject. For the comparison of different individuals, of course the same portion of the skin must be selected and the experiment should be repeated several times on each.

For testing the power of discrimination of pressure, cartridge shells or wooden bottles may be weighted with shot. Selecting a portion of the skin, as the wrist or back of the hand, a piece of blotting paper the size of the base of the weights used may be placed upon it to obliterate any difference in temperature that there may be among the weights and then placing one weight, the stand-

ard usually one hundred grams, carefully upon the selected place, leaving it until the subject clearly feels its weight. Then replace it with another. If the subject can not clearly perceive a difference, a weight ranging farther from the standard may be tried. When a weight is found which the subject on an average of three times out of four judges correctly to be either heavier or lighter than the standard, the minimum of discernible pressure has been found. The difference between this weight and that standard divided by the weight of the standard gives the power of discrimination in pressure.

These weights may be used in a similar manner for testing the muscular sense. Here the subject is given the standard weight and another one for comparison. From hefting them he judges which is heavier.

A simple test of the discriminating power of active touch may be made by using a collection of cloth samples of different degrees of fineness, having the pupil arrange them with closed eyes according to their fineness of texture. Samples of bolting cloth are especially well suited for this test.

Taste

There are four fundamental tastes: sweet, sour, bitter and salt. These are, respectively, tested by solutions of cane sugar, sulphuric or citric acid, quinine and common table salt.

In preparing the solutions it must be remembered that one cubic centimeter of water weighs a gram. To make a ten per cent. solution of sugar dissolve ten grams of sugar in ninety cubic centimeters of water. Portions of this solution may easily be reduced. Thus adding ninety cubic centimeters of water to ten cubic centimeters of the above solution gives a one per cent. solution.

The average person can detect about a one-half per cent. solution of sugar. So bottles of the solution of the sugar should be graded around this point. The closer the gradation, the more accurate will be the test. The solutions may be applied with a dropper, the same amount being taken by each subject.

In a careful test about one part of salt in two thousand parts of water may be tasted, one part of sulphuric acid in two thousand five hundred parts of water may be sensed, and one part of bisulphate of quinine in four hundred thousand parts of water can be detected.

In testing the sense of taste it must be remembered that the solutions should be about the temperature of the body, ninety-eight and six-tenths degrees Fahrenheit. Heat and cold both tend to deaden the sensitiveness of the organs of taste.

Smell

The sense of smell may be tested by solutions of clove oil in water. To dissolve the clove oil, it may be mixed with carbonate of magnesia, the two substances being thoroughly rubbed together. Then the mixture should be put into a filter paper and the water in which clove oil is to be dissolved should be filtered through the mixture. The solution may then be diluted with more water. Bottles of the solution of varying strength may be placed upon a desk a foot or two apart, ranging upwards from pure water, the subject trying each succeeding bottle until he recognizes the odor.

Peppermint water, which can be purchased at any drug store, may be used in the place of the oil of cloves. The United States Pharmacopoeia preparation of this contains two parts of oil of peppermint to one thousand parts of distilled water. This solution may be diluted and used to test the sense of smell.

SUGGESTIONS FOR WORK WHICH CAN BE DONE BY TEACHERS

FREDERICK EBY

Child Study had no sooner outgrown the swaddling clothes of psychological specialization and announced itself as pre-eminently a pedagogical factor, then there everywhere arose a feeling that the development of this new infant largely depended upon the sympathies of the primary teachers. And in spite of the persecutions of the specialist and the indifference of many teachers this feeling has in nowise diminished, the rather it has persisted to an increased degree. The more strange is this when we consider that the opposition was not of mediocre scientists alone but also from such representative thinkers as Professors Baldwin and Sully. The former, and by far the more positive, states that, of the two valid methods of Child Study, viz., observation and experiment, neither can be intrusted to the untrained abilities of the teacher. "But who," he inquires, "can 'observe' and who can 'experiment?'" Only the psychologist can "observe" the child, and he must be so saturated with his information and his theories that the conduct of the child becomes instinct with meaning for his theories of mind and body. And as for "experiment," greater still is the need of the trained man with the theory. In common terms, Baldwin does not trust the observations and records of the every-day companion of children. Professor Sully is not so hard to satisfy, but yet he is quite jealous of his confidence. He states that if progress is to be assured there must be specially qualified workers. But he has not gone so far as to entirely dis-

qualify teachers from participation in the grand task of child discovery. In his delightful work on childhood, after explaining his own method, he continues: "At the same time I gladly allow that other modes of observation are possible and in their way useful. This applies to older children who pass into the collective existence of the school class. Here something like collective or 'statistical inquiry may be begun into the contents of children's minds, their ignorances and misapprehensions about common objects. Some part of this inquiry into the minds of school children may very well be undertaken by an intelligent teacher." Just what this "part" may be, Professor Sully gives no further hint; in some measure, to determine it, is the problem of this paper.

I believe the reason, that up to the present hour teachers have had so little active participation in Child Study, has been the lack of some simple method which can produce scientific results in the hands of unskilled workers. The promised land has been in view but there was not a leader to bid the teachers to go up and possess their common heritage.

Professor Baldwin was not astray when he advocated the necessity of a theory. No person can formulate a systematic child psychology who is not inspired by some theory. Furthermore, no one can successfully conduct any broad inquiry into the mind of the child who has not the light of some theory even though it be of one candle power. If such men are lacking Child Study will never gain its passport into the encyclopedia of sciences but must ever remain without, an erratic patchwork of unrelated facts. But while the theorist is indispensable, not less so is the work of the teacher. Professor Baldwin erred when he unconditionally disparaged the reliability of the observations and records of the non-specialist. There is not only room for both of these workers, there is necessity for both. The task is to elaborate a method of procedure which will successfully adjust the relation of the teachers to the theorist and of the theorist to the teacher, some method which will give to each a fitting sphere of activity and at the same time will not invalidate the results of either. Such a method we have in the use of syllabi specially prepared by some careful student and then put into operation by the teachers.

Up to date two phases of the syllabi, or statistical method have been employed, within greater or less limits, with good success. One is the use of a list of direct questions, which the teacher places before the children and bids them answer without any word of comment. Such a procedure you observe in the syllabi which have been placed in your hands this afternoon. There are, no doubt, many objections to be urged against this method, but a glance at any of the papers which have been received will speedily bring

conviction that in this way many valuable facts may be gathered. It was this method that was employed in the study of children's reading. (See p. 977.) The other phase of this statistical method is that frequently seen in the studies made in California by Prof. Barnes and Miss Schallenberger. They have the teachers relate to the children some simple story and then use this as a basis of discovery. It was this story method which Prof. Barnes used in his well-known study of children's drawings. The following story used by Miss Schallenberger in a study of children's rights as seen by themselves, will be a good example of this method: "Jenny had a beautiful new box of paints; and in the afternoon, while her mother was gone, she painted all the chairs in the parlor, so as to make them look nice for her mother. When her mother came home, Jennie ran to meet her, and said, 'Oh, mamma, come and see how pretty I have made the parlor;' but her mamma took her paints away and sent her to bed. If you had been her mother, what would you have done or said to Jennie?" The results of this study are widely known and proved quite successful. It will be easily recognized that the use of the story and of the direct question are quite similar, but, yet, each has its peculiar advantages. The story is more fitted to repress any tendency to self-consciousness, and may thus keep the answers of the children more normal. But on the other hand, the direct question is many times more practicable than the story.

Hitherto the specialist has only trusted the teacher to employ the syllabus and then return all the answers to some central place for tabulation. Now such a procedure entails upon the tabulator an enormous amount of toil, and as a consequence, comparatively few answers can be collated. This drawback has resulted in the proposal for the enlargement of the sphere of the teacher.

The proposal is simply that the work of tabulation be undertaken by the teachers themselves, who use the syllabi. Now this is neither burdening the teachers nor yet placing unjustifiable confidence in their abilities to perform trustworthy work. The number of papers falling to any one tabulator can certainly never be very great. And it can be readily seen that their work must certainly be trustworthy, for there is little room for error.

If you will look at the syllabi placed at the end of this paper, you will observe that we have appended a table which is to be used in the tabulation and also all the necessary directions for the filling of this table. It has been our practice after drawing up a list of questions upon any definite subject of inquiry, to make a preliminary test of its worth. These tests bring out any errors that may appear in the questions, and at the same time serve as a basis for the preparation of careful tables which may be most readily em-

ployed by the teacher. To convince you of the ease and importance of this work, let me draw your attention to the plans for the study of child aesthetics. You will notice that the suggestion is given that in presenting these questions to the pupils use be made of the concrete examples. When this is done the answers will be more reliable. If the question be No. 3, which is an attempt to discover in how far children appreciate the harmony of form apart from color, nothing is simpler than the collation of the number of those who prefer a colored to a non-colored object. In the few papers I examined on this question the great predominance of the vote is for color. If this prove to be a general fact with large bodies of children may we not justly conclude that from an aesthetic point of view drawing should first be done with crayons and not with the pencil? Next consider the syllabus prepared by Mr. Smedley on the likes and dislikes of children in regard to certain subjects of study. Attention need hardly be drawn to the worth of any facts which may be established on a subject of such vital importance in child interest. Furthermore, the study of the child tendency to use secret languages is a phenomena of surprise to many, but of 40 children we found that about 30 were employing or at some time had employed a secret language as a means of communication with their fellows and friends. These languages are at times spoken languages, at times written, and frequently made by hand signs. There is reason to conjecture that the use of secret communication is almost a universal feature of childhood. Dr. Oscar Crisman, who has made some investigations along this line, estimates that there must be a hundred or more such child languages. Such a fact must indeed be of wide significance to the thoughtful teacher.

When the results have been tabulated they can be forwarded the Department of Public Instruction and aggregated with the statistics from other schools. In this simple manner in a short time results may be obtained which will represent large masses of children scattered throughout many localities. And on the basis of so great numbers data can certainly be gained for scientific induction.

But the teacher must not feel that she is merely at the command of the specialist in this matter. The work must be one of sympathetic co-operation. The teacher will find abundant opportunity of assisting the specialist in gaining new view-points for further studies. Not long ago, when presenting a syllabus, the principal of the school, in a spirit of unkindly criticism, hinted that the next time, before drafting a study, we seek the advice of some teacher who knew children. His criticism may have been unjust, but it was vastly suggestive. The teacher, when once her attention and inter-

est are aroused in a subject, may be able to suggest many valuable investigations. And why should the teacher not draw up a syllabus, test it on her pupils, and then communicate what she has found worthy? So, then, the teacher can feel that her field is almost co-extensive with that of the theorist.

The inquiry might be raised as to how far this statistical method can be made feasible; what is its province? It certainly can never supersede the careful personal investigations of scientists. But it can be widely employed both among the children in the primary grades and also among those who are in higher schools, of whom, so far, little study has been made. However, this question can not be answered at present. It must follow, heel to heel, with judicious experiment. Results alone can point to its sphere, and it will be unwise to set any bounds, either widely or narrowly, lest some future scientist should make again the survey and then a pedagogical commission might be necessary to determine the boundary disputes. And in ending let me state that in putting into operation the suggestions which have been made the teacher is receiving as much benefit as she confers upon the scientist. She is given a sure and easy means of studying the children under her charge. If no further results were obtained from these investigations, the influence upon the teacher would be an ample justification for the expenditure of time and labor. But there can be little doubt that if this work is faithfully performed it will not be long before we shall rescue the best of education from the mists of speculation and the fog of traditional practice, and illumine it with the searchlight of an actual science. It will not be long before we shall have completed Mr. Spencer's three stages of evolution; we shall pass not only from the unanimity of the ignorant to the disagreement of the inquiring, but we shall obtain in some measure, at least, the unanimity of the wise. And I am sure I need not urge upon the teachers of this State to give assistance in this noble work, much less need I bid them keep abreast of the times.

Attention is asked for the following syllabi, prepared to accompany and illustrate this paper.

STUDY IN THE USE OF SECRET LANGUAGE AMONG CHILDREN

Prepared by Frederick Eby.

The use of this syllabus is quite simple. Place the subsequent list of questions before the children and have them record their answers. Then have the girls put upon their papers the figure 5 and the boys the figure 3. In tabulating the answers the teacher should use judgment so as to have the results scientifically valid.

List of Questions

- 1. Have you ever used a secret language?
- 2. With what people did you use it?
- 3. Why did you use it?
- 4. Did you learn it from some one, or did you make it yourself?
- 5. Was it a written or spoken language, or was it made by signs of the fingers and hands?
- 6. If you use a secret alphabet, will you record it? or if it was a word language, please give an example of some words or sentences.

These questions may be answered as well by adults and tabulated with the others.

TABLE TO BE USED IN TABULATING RETURNS

		No.	REASON
Used Secret Language.	Boys		
	Girls		
Did not use it.	Boys		
	Girls		
With friends.	Boys		
	Girls		
With elders.	Boys		
	Girls		
Written only.	Boys		
	Girls		
Spoken only.	Boys		
	Girls		
Hand signs only.	Boys		
	Girls		
Written, spoken and sign made.	Boys		
	Girls		
Self-originated.	Boys		
	Girls		
Learned.	Boys		
	Girls		
Used Alphabet.	Boys		
	Girls		

A STUDY IN CHILDREN'S INTERESTS IN THE SUBJECTS OF THE CURRICULUM

Prepared by F. W. Smedley.

This is an investigation of child interest. Its primary purpose is to ascertain what subjects appeal most strongly to the child in the different stages of his development. It is believed that the teacher who compiles the papers received in reply to the questions will gain an insight into the attitude of the individual pupils that will amply repay her for the effort, while the writing of the paper will form a good language exercise for the pupils.

Directions: Use the paper regularly used in the school for composition work. Have the name and age written upon the paper. Write the questions upon the blackboard and request the pupils to number the answers to correspond with the number of the question.

1. What study do you like best?
2. Why?
3. Have you always liked that study best?
4. Do you stand the highest in that study?
5. Name your other studies in the order of your preference.

PRELIMINARY STUDY IN CHILD-ÆSTHETICS*

Purpose of the Study

Though the study of the aesthetic sensibilities of children may not be of essential value to the work of the class room, it is, however, not entirely foreign to the teacher, while it is of fundamental interest to the scientific student of childhood. The questions to be answered individually by the pupil are quite simple and easily explain what is the direct purpose of this preliminary study.

It is desirable that every teacher should feel it a special privilege to send in suggestions for the more extended study of the aesthetics of childhood. Any drawings by children will also be most gladly received.

Directions to Teachers

In order to secure results which shall be of scientific worth it will be important to undertake this plan of Child Study with precaution. If children become conscious that they are being examined, there is danger they will become unnatural and will answer without strict regard to truth. Care must therefore be taken that every child be uninfluenced in the truthfulness of his individual answers. To avoid all danger the list of questions should be introduced as part of the regular exercises of the school; it may, perhaps, be most adroitly disguised as a lesson in writing or composition.

For the purpose of tabulation three personal facts will be absolutely essential in regard to each child: (1) the age, (2) the sex, and (3) the nationality. The pupil may himself add the age and name, and the teacher while tabulating may append the nationality.

List of Questions

1. Which do you like better, to hear some beautiful music or to see some pretty object?
2. Which sounds nicer, to hear somebody singing or to hear some musical instrument alone?
3. Do you think a colored picture more beautiful than one that has no color? (If possible, let the teacher present two pictures, one highly colored and one with form merely.)
4. Would you look at a living animal rather than at some object which has no life?
5. Does an animal look prettier when standing still or when moving?

- { 6. What color makes the prettiest dress?
- { 7. What two colors do you like to see together?

Note.— For these questions let the teacher introduce, if possible, the colors immediately to the eyes of the children.

- 8. What is the most beautiful animal?
- 9. What do you think is the most beautiful object you have ever seen?
- 10. Why do you think this is most beautiful?

PLAN FOR A STUDY OF CHILDREN'S READING*

STUDIES OF CHILDREN, No. 1.†

This study is designed to show, so far as possible, what children are actually reading. It will show incidentally what proportion are not reading at all. Pains should be taken not to arouse the child's self-consciousness or suspicion in any way. The work should, if possible, be brought in as part of the regular class work in English. It furnishes a good subject for a short composition. Use whatever kind of paper is regularly used in the school for composition work. It will hardly be profitable to try the plan with a grade lower than the third. The name, age, and sex of the child are required for each paper. It will be better not to say anything to the pupils about this. As a rule they will put on the name anyhow. The teacher can, in a few moments, add age and sex in each case. The name will usually show the latter.

Do not let the children know they are being studied. Do not tell them that thousands of other children are being asked the same questions. The work to be done is very simple. All the pupils are to write a composition in answer to the following questions:

- 1. What books have you read since school began last September?
- 2. Which one of these did you like best?
- 3. Why did you like that book?
- 4. What book have you ever read that you liked better?
- 5. What book have you ever read that you did not like?
- 6. Why did you not like it?
- 7. If you were given money to buy a book you have never read, what book would you buy?

The papers should not be corrected by the teachers, further than to add, where necessary, age and sex. The name is of no conse-

*This syllabus was prepared and tested by a seminar in the University of Chicago. The results are given on page 978 of this report.

†Extra copies of this syllabus can be obtained gratis by addressing Prof. C. H. Thurber, University of Chicago.

quence, and it is not necessary to add it in cases where it has been omitted. The request is made that all papers be sent to Professor C. H. Thurber, University of Chicago, Chicago, Ill. The Department of Pedagogy wishes to compile the results.

Teachers and other adults are requested to answer the questions as well as they can from memory, for some date in early life. Kindly forward reminiscences to the address given above.

REPORT ON CHILD READING

H. C. HENDERSON

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This report is based upon results obtained from some 3,000 children in eight representative grammar schools of the city of Chicago. The syllabus used originated in Prof. Thurber's class in Child Study and has since been used by a large number of schools from Maine to California. The examination of the papers sent in was made by the different members of the class.

Some of the objects for which the syllabus was used were first, to get a knowledge of what the children in the schools are actually reading; second, to find out how much the children are reading; third, to determine what classes of books receive the greatest attention at the different ages and by the different sexes; fourth, to obtain lists of books specially popular at different ages and with the different sexes; fifth, to get at some of the reasons why certain books are preferred or disliked; sixth, by means of the information thus gained to aid the teacher and parent in directing the pupils reading.

To accomplish these ends, the following questions were inserted in the syllabus to be carefully answered by each pupil:

1. What books have you read since school opened last September?
2. Which one of these did you like best?
3. Why did you like that one?
4. What book have you ever read that you liked better?
5. What book have you ever read that you did not like?
6. Why did you not like it?
7. If you were given money to buy a book you have never read, what book would you buy?

Teachers were requested to introduce the questions as a regular exercise and in no way to arouse the children's suspicions. Each paper was to be accompanied by the age and sex of the pupil, the name being unimportant. As a rule, however, the name was put on, as upon any composition exercise.

The teachers in the city who were asked to use the syllabus readily responded and as a result a large number of papers were

sent in. From these the returns which I shall present were obtained. The papers were sent in early in February last so that the records we have cover a period of about five months. The total number of papers examined was 2,989 containing the replies of 1,511 boys and 1,478 girls. The ages represented are from 9 to 15.

In compiling results, answers to the first two questions have received the largest amount of attention. For convenience in classification; the books reported were referred as far as possible to one of the following heads: History, Biography, Fiction, Travel, Adventure, Science and Poetry. In adhering to this classification it was often difficult to decide under just what head a given book should be placed: e. g., in the case of "Robinson Crusoe," should it go under the head of Fiction or of Adventure; or in that of the almost equally popular book "The Boys of '76," should it be classed as History or as Adventure? As a rule, all ordinary children's stories as well as the standard works of fiction were put under the head of Fiction, and those books that were either histories or that made the historic interest most prominent were classed as History, while under Adventure were placed those books in which striking, stirring scenes of daring, danger, etc., made the most prominent features. The reasons given for liking the books also furnished a guide to the classification. But it must be confessed that in many cases, the titles alone furnished the clew to classification. Such titles as "The Wild Hunter of the Mountains," "Ten Years in a Man Trap," etc., being sufficiently suggestive.

In answer to the first question the names of the books given were supposed to represent the total reading done during the previous five months. On a number of papers, however, after a list was given were added such statements as "and forty more," "and a number I can't remember," so we must not conclude that the records obtained give an accurate statement of all the books read by the pupils whose papers have been examined. As it is, the total number of names of books sent in amounted to 16,739, making an average per pupil of 5.6. The number read by individual pupils according to the lists given, varied from none in some 25 cases to over 60 in the case of one miss of 13.

An examination of the actual number of books read at the different ages shows that the number read per pupil in the case of both boys and girls is least at the age of 9 and greatest at the age of 15, a gradual rise in amount being noticeable throughout, the only break in the rising scale being in the case of the girls at the age of 14 and the boys at the age of 12. The average number of books read varies in the case of the boys from 3.6 at the age of 9 to 6.3 at the age of 15; and in the case of the girls from 4.6 to 6.4.

The following table shows the total number of books of each class read at the different ages by the boys and girls.

TABLE I

BOYS

AGE	History	Biography	Fiction	Travel	Adventure	Science	Poetry	Total	Number of pupils	Average per pupil
9.....	22	15	246	7	11	10	8	319	90	3.6
10.....	88	55	402	16	58	30	6	655	153	4.3
11.....	218	100	861	25	116	37	24	1,381	249	5.5
12.....	263	131	945	44	194	47	35	1,659	326	5.0
13.....	319	111	959	69	426	42	42	3,968	344	5.7
14.....	269	108	840	52	167	33	49	1,518	257	5.9
15.....	119	38	261	15	97	9	40	579	92	6.3
Totals	1,298	558	4,514	228	1,069	208	204	8,079	1,511	5.3

GIRLS

9.....	28	15	433	6	5	13	3	503	110	4.6
10.....	75	42	749	14	13	31	27	951	169	5.6
11.....	109	48	1,477	10	33	23	38	1,738	290	5.7
12.....	142	98	1,809	36	37	33	66	2,221	367	6.0
13.....	100	68	1,320	46	35	21	57	1,647	271	6.1
14.....	73	29	802	16	19	7	58	1,004	176	5.7
15.....	49	17	472	7	10	2	39	596	95	6.4
Totals	576	317	7,062	135	152	130	288	8,660	1,478	5.8

Total pupils.....	2,989
Total books.....	16,739
Average	5.6

TABLE II

Table showing-number of books of each class read per 1 000 pupils of each age

BOYS

AGE	History	Biography	Fiction	Travel	Adventure	Science	Poetry
9.....	245	167	2,733	78	122	111	89
10.....	575	359	2,627	105	379	196	39
11.....	876	402	3,458	100	466	149	96
12.....	806	402	2,899	135	595	144	108
13.....	927	323	2,788	201	1,238	122	122
14.....	1,047	420	3,269	402	650	128	191
15.....	1,293	413	2,837	163	1,055	98	435

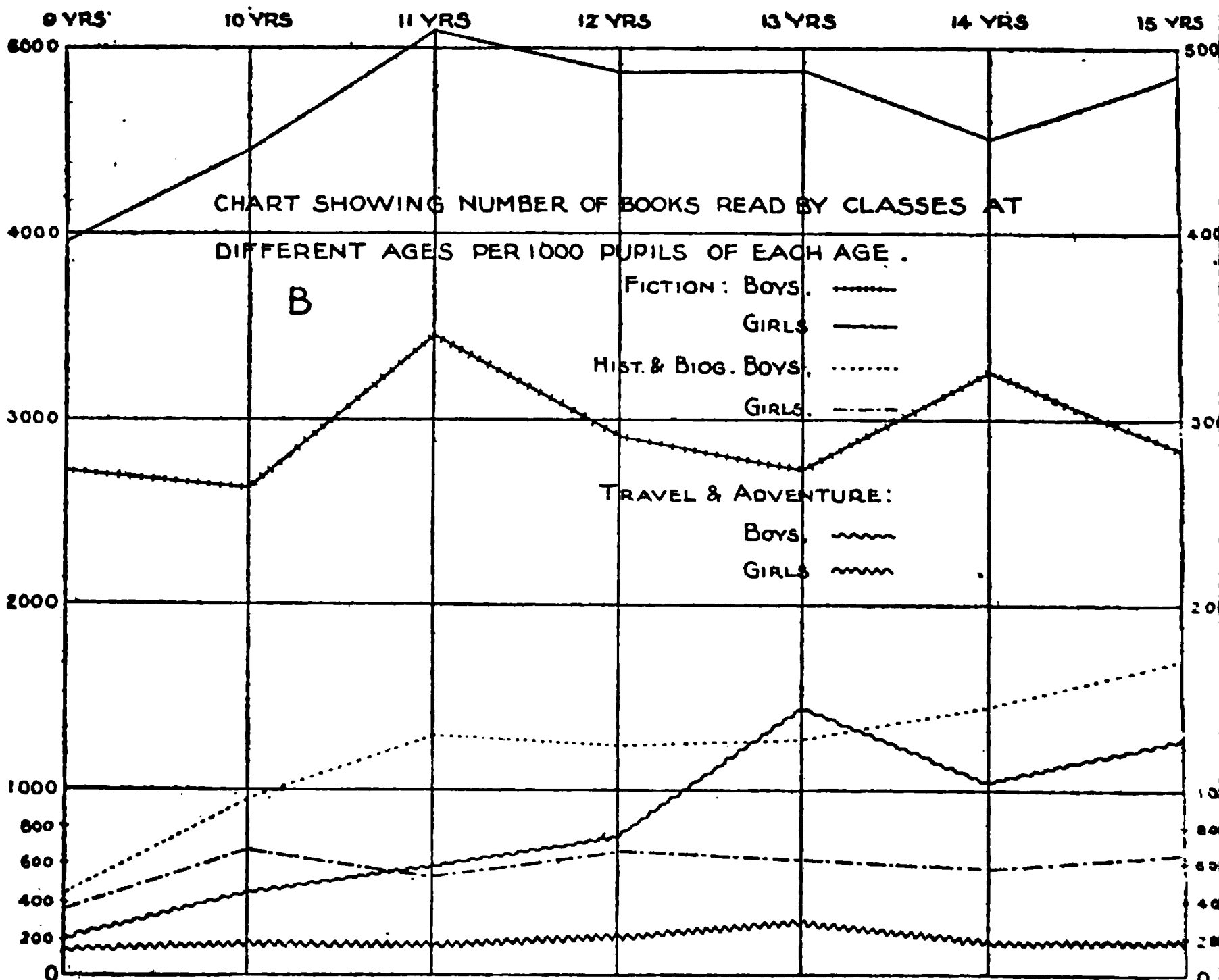
GIRLS

9.....	254	136	2,936	55	45	118	27
10.....	444	248	4,432	83	77	184	159
11.....	370	165	5,093	34	113	79	131
12.....	387	267	4,901	97	101	89	178
13.....	368	251	4,870	169	128	77	213
14.....	414	164	4,557	91	108	88	330
15.....	515	176	4,851	72	105	20	460

books classed as adventure are in the main a species of fiction, but even so regarding them there is a wide difference as to the kind of fiction preferred.

Chart B shows first, the relation between (a) the amount of fiction read by the boys and girls at the different ages; (b) the amount of history and biography. Second, a comparison between the amounts read in these different classes, (a) by boys; (b) by girls. Third, a comparison between the amounts read in the same class at different ages (a) by boys; (b) by girls. Fourth, a comparison between amounts read in the same class at the same ages by boys and by girls.

In this chart the statistics have been reduced to the uniform basis of number of books read per 1,000 pupils at each age.



The lines for fiction show many irregularities. In the case of both boys and girls the high-water mark is reached at the age of 11, a fact that has its counterpart in the increasing interest taken at the succeeding ages in other classes of books. It will be noticed,

however, that the drop in the case of the girls is not nearly so rapid as in the case of the boys. In the other classes it is a matter of interest to see how near together the lines representing history and biography and travel and adventure for the boys and girls begin and how widely they diverge.

It is to be noted that at the age of 13, the record for travel and adventure stands highest, in the case of the boys phenomenally so. In comparing the record for history and biography with that of travel and adventure for boys only, it is to be noticed that while the former both begin and end ahead at the age of 13 the record for the latter climbs far above.

The examination of the answers sent in to the second question, "What book of those read did you like best?" resulted in obtaining the following classification:

BOYS

AGE	History	Biography	Fiction	Travel	Adventure	Science	Poetry	Number of pupils
9.....	14	7	62	3	4	0	0	90
10.....	29	15	86	6	10	2	2	150
11.....	42	18	95	8	11	2	5	176
12.....	50	26	81	7	42	9	8	218
13.....	58	17	120	7	53	8	2	260
14.....	56	32	104	11	27	5	10	245
15.....	18	9	27	4	21	1	8	88
	267	124	575	41	168	22	30	1,227

GIRLS

9.....	12	7	87	1	1	2	1	111
10.....	18	10	120	6	1	1	6	162
11.....	29	12	197	1	6	0	6	251
12.....	16	8	176	4	6	0	6	216
13.....	19	14	185	9	2	6	8	248
14.....	12	10	112	0	4	0	7	145
15.....	10	10	56	1	1	1	4	88
	116	71	933	22	21	10	38	1,211

Seven Preferences by classes per 1,000 pupils of each age.

BOYS

AGE	History	Biography	Fiction	Travel	Adventure	Science	Poetry
9.....	155	78	689	33	44	0	0
10.....	193	100	573	40	61	13	13
11.....	223	98	505	16	58	11	26
12.....	275	119	371	32	192	41	13
13.....	223	65	461	27	239	11	8
14.....	228	181	424	45	114	20	41
15.....	204	102	307	46	239	11	88

Eight Preferences by classes per 1,000 pupils of each age — (Cont'd)

GIRLS

AGE	History	Biography	Fiction	Travel	Adventure	Science	Poetry
9.....	109	64	790	9	9	18	9
10.....	111	61	741	37	6	6	37
11.....	111	47	784	4	24	0	24
12.....	74	37	810	19	28	0	28
13.....	78	58	761	37	8	24	33
14.....	82	69	778	0	28	0	48
15.....	120	120	674	12	12	12	49

The above table represents the figures of the preceding table reduced to the standard of 1,000 pupils at each age.

The total preferences expressed by 1,227 boys and 1,211 girls are classified as follows:

	Boys	Per cent	Girls	Per cent
Fiction	575	46.8	933	77.
History	267	21.7	116	9.6
Adventure	168	13.8	21	1.7
Biography	124	10.3	71	6.3
Travel	41	3.3	22	1.8
Poetry	30	2.4	38	3.1
Science	22	1.8	10	.8
	1,227	.....	1,211	.....

Once again comes the marked difference between the amount of fiction preferred by the boys and girls and, as in the case of the totals before given, the girls exceed the boys in fiction and poetry only.

It is to be noted that the amount of fiction included in the preferences in the cases of both boys and girls is relatively smaller when compared with the rest of the preferences than the total amount of fiction read compared with the totals in the other classes. This is notably the case with the boys whose preferences for history, biography and travel are much higher in proportion than the numbers in these cases actually read. This would seem to show that if the boys had access to good works of these latter classes they would choose them more readily than they would works of fiction or simple stories. It is interesting as well to note, in the case of the boys, the gradual rise in history reading as they get older and the gradual drop in fiction reading. In this latter class the highest point reached per pupil is at the age of nine and the lowest at the age of 15. The reading of the girls in fiction remains comparatively uniform throughout the different ages.

In preferences as in total reading, the highest point reached by adventure is at the age of 13. The girls of 10, however, come up to the same number as those of 13 and the boys of 13 as those of 15. The drop seen in the case of boys of 15 as compared with those of 14 in the lines of history and biography and the corresponding rise in books of adventure should not, I think, be taken as a normal circumstance. Were the boys of 15 in the high schools, instead of the grammar schools I have a feeling that the results would be different.

The preferences for history and biography were most strikingly seen among boys of foreign parentage — Germans, Poles and Bohemians. With these, the text books, in reading, geography, grammar and arithmetic also received many preferences.

Lists of books showing the 10 receiving the highest preferences for the different ages:

BOYS (9 years)

Robinson Crusoe.
Life of Washington.
Dickens' Child's History of England.
Birds' Christmas Carol.
Jack the Giant Killer.
Red Riding Hood.
Rip Van Winkle.
Story of Our Country.
Jack and the Bean Stalk.
Life of Lincoln.

GIRLS (9 years)

Little Red Riding Hood.
Robinson Crusoe.
Little Women.
Jack and the Bean Stalk.
Alice in Wonderland.
Cinderella.
Grimm's Fairy Tales.
History of Washington.
Story of Our Country.
Jack the Giant Killer.

BOYS (10 years)

Grimm's Fairy Tales.
Robinson Crusoe.
Uncle Tom's Cabin.
Life of Washington.
Black Beauty.
Juan and Juanita.
Story of Our Country.
Longfellow's Poems.
Peck's Bad Boy.
Jack and the Bean Stalk.

GIRLS (10 years)

Little Red Riding Hood.
Life of Washington.
Story of Our Country.
Grimm's Fairy Tales.
Cinderella.
Robinson Crusoe.
Uncle Tom's Cabin.
Five Little Peppers.
Two Little Pilgrims' Progress.
Little Women.

BOYS (11 years)

Robinson Crusoe.
Life of Washington.
Uncle Tom's Cabin.
Black Beauty.
Hans Andersen's Fairy Tales.
Frank on the Gunboat.
Longfellow's Poems.
Under the Lilacs.
Juan and Juanita.
Five Little Peppers.

GIRLS (11 years)

Little Women.
Uncle Tom's Cabin.
Grimm's Fairy Tales.
Little Lord Fauntleroy.
Black Beauty.
Seven Little Sisters.
Life of Washington.
Little Red Riding Hood.
Sara Carew.
Editha's Burglar.

BOYS (12 years)

Boys of '76.
 Little Men.
 Life of Washington.
 Black Beauty.
 Grimm's Fairy Tales.
 Gulliver's Travels.
 Two Little Pilgrims' Progress.
 Hunters of the Ozarks.
 Lion of St. Mark.
 Frank on the Mountains.

BOYS (13 years)

Boys of '76.
 Black Beauty.
 Robinson Crusoe.
 Life of Washington.
 Uncle Tom's Cabin.
 Building of the Nation.
 Life of Lincoln.
 Fiske's History of the United States.
 Little Men.
 Seven Little Sisters.

BOYS (14 years)

Boys of '76.
 Fiske's History of the United States.
 Evangeline.
 Life of Lincoln.
 Uncle Tom's Cabin.
 Building of the Nation.
 Black Beauty.
 Swiss Family Robinson.
 Tom Sawyer.
 David Copperfield.

BOYS (15 years)

Evangeline.
 Uncle Tom's Cabin.
 Count of Monte Cristo.
 Last of Mohicans.
 Cast Away in the Cold.
 Boys who become Famous.
 Barnes' History of the United States.
 Life of Washington.
 Pilgrims' Progress.
 Little Men.

GIRLS (12 years)

Little Women.
 Robinson Crusoe.
 Uncle Tom's Cabin.
 Little Men.
 Under the Lilacs.
 Black Beauty.
 Two Little Pilgrims' Progress.
 Life of Franklin.
 Seven Little Sisters.
 Eight Cousins.

GIRLS (13 years)

Little Women.
 Uncle Tom's Cabin.
 Life of Washington.
 Little Lord Fauntleroy.
 Black Beauty.
 Little Men.
 Under the Lilacs.
 Aunt Jo's Scrap Book.
 Christmas Carol.
 The Lamplighter.

GIRLS (14 years)

Little Women.
 Uncle Tom's Cabin.
 Evangeline.
 Robinson Crusoe.
 Life of Lincoln.
 The Wandering Jew.
 Little Men.
 Ben Hur.
 Elsie's Children.
 Under the Lilacs.

GIRLS (15 years)

Little Women.
 Life of Washington.
 Elsie Dinsmore.
 Ben Hur.
 Eight Cousins.
 Christmas Carol.
 Scottish Chiefs.
 Ivanhoe.
 Nicholas Nickleby.
 Beautiful Joe.

The Fifty Books Receiving the Greatest Number of Votes in the Order of Preference.

		Number of preferences	Boys	Girls
1	Little Women.....	94	2	92
2	Uncle Tom's Cabin	86	23	63
3	Robinson Crusoe.....	74	47	27
4	Boys of '76.....	58	53	5
5	Life of Washington.....	52	32	20
6	Black Beauty.....	49	29	20
7	Grimm's Fairy Tales.....	42	17	25
8	Little Men	36	20	16
9	Little Red Riding Hood.....	21	2	19
10	Under the Lilacs.....	21	4	17
11	Little Lord Fauntleroy.....	21	7	14
12	Life of Lincoln	21	14	7
13	Evangeline	19	8	12
14	Two Little Pilgrims' Progress.....	17	5	12
15	Fiske's History of the United States.....	15	15	0
16	Seven Little Sisters	14	3	11
17	Story of Our Country.....	10	0	10
18	Alice in Wonderland.....	9	0	9
19	Longfellow's Poems.....	9	4	5
20	Building of the Nation.....	9	7	2
21	Jack and the Beanstalk	9	1	8
22	Sweet William.....	9	2	7
23	Cnora.....	9	4	5
24	Cinderella	8	0	8
25	Arabian Nights.....	7	2	5
26	The Christmas Carol.....	7	0	7
27	The Lamplighter	7	1	6
28	John Halifax	7	1	6
29	Swiss Family Robinson.....	7	4	3
30	Juan and Juanita.....	7	7	0
31	Huckleberry Finn.....	7	2	5
32	Scottish Chiefs	6	3	3
33	Cast Away in the Cold	6	3	3
34	Gulliver's Travels	6	6	0
35	Eight Cousins	5	0	5
36	Aunt Jo's Scrap Book	5	0	5
37	Five Little Peppers	5	2	3
38	Tom Sawyer.....	5	5	0
39	Ben Hur.....	5	0	5
40	Editha's Burglar	5	0	5
41	Sara Crew.....	5	0	5
42	Count of Monte Cristo.....	5	3	2
43	David Copperfield	5	1	4
44	Old Fashioned Girl.....	5	1	4
45	Pilgrim's Progress.....	5	2	3
46	Life of Franklin.....	5	3	2
47	Daniel Boone	5	5	0
48	Ivanhoe	5	3	2
49	The Wide, Wide World	5	0	5
50	Birds' Christmas Carol	5	0	5

Second Fifty.

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| 51. Dickens' Child's History of England. | 60. Elsie Dinsmore. |
| 52. Hans Andersen's Fairy Tales. | 61. Elsie's Children. |
| 53. Captain January. | 62. Last Days of Pompeii. |
| 54. Red Skin and Cow Boy. | 63. Life of U. S. Grant. |
| 55. Jack the Giant Killer. | 64. Hawthorne's Wonderbook. |
| 56. Oliver Twist. | 65. The Hunter of Ozark. |
| 57. Frank on the Gun Boat. | 66. St. Bartholomew's Eve. |
| 58. Grandfather's Chair. | 67. Boys of the First Empire. |
| 59. The Wandering Jew. | 68. Not Like Other Girls. |

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|--|-----------------------------------|
| 69. The Boys of '61. | 85. Lion of St. Mark. |
| 70. Frank in the Woods. | 86. Jack and Jill. |
| 71. What Katy Did. | 87. Æsop's Fables. |
| 72. Beautiful Joe. | 88. Dotty Dimple. |
| 73. The Old Curiosity Shop. | 89. Frank on the Mountains. |
| 74. Life of Napoleon. | 90. Adventures of a Brownie. |
| 75. Little Saint Elizabeth. | 91. Rose in Bloom. |
| 76. Rip Van Winkle. | 92. Adam Bede. |
| 77. Last of the Mohicans. | 93. A World of Girls. |
| 78. With Lee in Virginia. | 94. Five Little Peppers Grown Up. |
| 79. Poor Boys who become Famous. | 95. Wild Life Under the Equator. |
| 80. Nicholas Nickleby. | 96. Ragged Dick. |
| 81. Barnes' History of the United States. | 97. History of Columbus. |
| 82. Montgomery's History of the United States. | 98. Barriers Burned Away. |
| 83. Joe's Boys. | 99. Innocents Abroad. |
| 84. Prisoner of Zenda. | 100. Peck's Bad Boy. |

The answers to the third and sixth questions, as might be supposed, present many difficulties in classification. The reasons for preference and for non-preference are very varied. Of all the reasons given, the non-explanatory reasons "Because it was interesting," "Because it was not interesting," were far in excess. Many others again expressed the reason for their preference by stating some detail of the story, or "Because it is about" so and so.

The reasons for dislike were much more clearly stated on the whole than the reasons for preference. That this should be so is, I think, natural. When a child is engrossed in a story he is not analyzing his experience and questioning why he likes it. He and the movement of the story are one. He likes the story but why, beyond the fact that it interests him, it is hard for him to say. In the case of dislike, he is going to be aware of the dislike before he has finished, and there will be a more or less conscious conclusion as to why he fails to be interested.

Some of the characteristic answers as to preference are: "Because it is about boys." "Because it is about war." "Because it was exciting." "Because it contained history." "Because it was funny." "Because it is about girls." "Because it is a natural story." "Because the characters were good, i. e., kind, loving, proud," etc.

Some characteristic answers to the question concerning dislikes are:

"Because it was silly." "Because it is a book for girls." (Said by boys.) "Because it is a book for boys." (Said by girls.) "Because it is a love story." (Said by the boys and younger girls.) "Because it is for younger children." "Because it was dry." "Because it was sad." "Because I could not understand it."

In the preferences for history and biography the giving of information was frequently given as a reason by boys of foreign parentage.

Some quotations from individual papers:

Girl of 14.—“I did not like ‘Gulliver’s Travels’ because it was so silly.”

Boy of 13.—“I did not like ‘Little Women’ because it is a book for girls.”

Girl of 13.—“I liked ‘Little Lord Fauntleroy’ best because it is such a sweet story.”

Boy of 12.—“I did not like ‘Lord Fauntleroy’ because my mother always made comparisons.”

Boy of 13.—“The book I like best was ‘The Red Cockade’ because it informed me of pretty near all the wars, it used good language and told me exciting adventures of generals and captains.” “The book I did not like was ‘Pendennis.’” “The reason why I did not like it was because it didn’t use very good language and told some of the most foolish stories I ever saw. It told things that made me dream nights, altogether combined it was no good.”

Girl of 15.—“I didn’t like ‘Tom Brown’s School Days;’ I didn’t like it because it was a very silly book. The boys wouldn’t think so because it tells how to play football and so on, so it has no interest for me for I will never play football. Altogether, it is a book for boys, not for girls.”

In presenting this report, I must express my pleasure in knowing that such an amount of high class reading is being done by the boys and girls in the different schools sending in returns. The list of 100 books receiving the highest choice is worthy on the whole of much commendation. It shows that ordinarily when boys and girls have the opportunity to get good books they will read and appreciate them. Not that in the whole list of several thousand books there were not a number that might be better left unread, but, on the whole, if the truth in the majority of cases has been told, there is a gratifying scarcity of books of the typical “dime-novel” type.

One of the principal causes of this is that in each of the schools from which papers were received there is a good school library, and so a tribute of considerable worth has been paid to the school library idea.

The preponderance of fiction over the other classes is overwhelming in the cases of both boys and girls, but from the fact that in the preferences, the percentage of books of biography and history rises in proportion to the percentage of books of these classes actually read, while in fiction the reverse is true, would seem to indicate that if more historical and biographical literature of an interesting

character were placed in our school libraries, some of the lighter class of fiction could be dispensed with.

The fact that boys around the age of thirteen seem to have a special fondness for tales of adventure should suggest that just care be taken in the selection of books that would meet this natural taste on the part of the boy, while at the same time eliminating those books of the flashy, purposeless type which stimulate a morbid desire rather than satisfy a normal one.

The very small percentage of books of science and of poetry read and preferred by both boys and girls, would suggest that more might be done towards preparing the pupils for a fuller enjoyment of both these classes, and that in making a library selection a due place should be allowed for suitable books dealing with the many interesting phases of nature's processes and of scientific discovery and invention, as well as for the many beautiful things in poetry that can be appreciated by children.

The wide difference in tastes shown by boys and girls is very significant. It should be a strong argument against the theory that the education of boys and girls, of men and women should proceed along just the same lines. Not but that up to a certain point the same studies may be helpful to both, but it should not be expected that each sex should get the same things out of them.

From the fact that in many cases very large lists of books were reported as having been read in the limited time—in some cases averaging two and three books per week for many weeks, one can readily conclude that there should be careful supervision of the children's reading by the teacher and parents not so much in the choice of books, for with a good library that will take care of itself, but in regulating the amount of books read. Nothing can be more pernicious mentally than for a pupil to be constantly reading without ever thinking over what has been read. New impressions come in to obliterate the old, and finally the brain's power of receiving, and especially of retaining impressions is greatly reduced; the consequence being poor memories and inefficient students. Some check should be judiciously imposed so that the number of books read by many pupils should be materially lessened. What is lost in quantity could well be made up in quality, and in the increasing of the intelligent interest with which the books are read. Surely one good book per fortnight ought to be sufficient to supply an ordinary boy or girl with enough reading matter if the book is to be of any permanent value. In order to better regulate the amount of reading done as well as its character, the custom prevailing in some schools of requiring each pupil to hand in on the return of a book to the library, a filled in blank giving a short synopsis of the book with names of characters preferred and reasons why, with reference

to any points in the language or in descriptions that were thought to possess special merit, might well be generally employed.

On the other hand we have the pupil—usually a boy—who has no interest whatever in reading, and who answers as did some on the papers sent in, “I have read no books since last September.” Here we have a pupil who is entitled to a good deal of attention by parents and teacher. His leading interest should be discovered and some entertaining book, which makes much of one of those interests, should be introduced at the right time and the pupil be led to feel that the writers of books are his friends and that they have something just for him.

On the whole, the question of children's reading is such an important one that it is worthy of every teacher's consideration to see just what and how and how much is being read in each school community.

EXHIBIT No. 18

COMPULSORY EDUCATION

REPORTS OF ASSISTANTS TO ENFORCE COMPULSORY ATTENDANCE LAW

obtain from the census the actual number of children residing within the district between 8 and 16 years of age, then secure from the school register the number of such children in actual attendance upon the day of the visit and comparing these, inquire as to the whereabouts of the missing.

If the absentees were properly accounted for, either as sick or legally at work, the teachers were commended for their good work; the president or some other member of the board of education, and if possible, the attendance officer were seen and their efforts approved. If, however, the absent ones could not be properly accounted for by the teachers, several members of the board of education were called on, or where possible, the board was convened and their attention called to the laxness shown in the administration of the law. They were admonished as to the results to their district of failure to enforce the law, not only in the loss of public money, but in the permanent injury to their children, and assured that it was the purpose of the State Department of Public Instruction to insist upon a consistent but vigorous enforcement of its various provisions.

After each inspection the following blank was filled out in duplicate, one copy of which was retained for reference by the inspector and the other forwarded at once to you.

STATE OF NEW YORK — DEPARTMENT OF PUBLIC INSTRUCTION

(Bureau of Compulsory Education)

REPORT OF INSPECTION

- I. Place inspected..... County.....
 - (a) District No....., (b) School Commissioner.....
- II. Date of inspection.....
- III. Superintendent or Principal.....
 - (a) Is he in sympathy with the law?.....(b) Is he active in its enforcement?.....
- IV. President of the Board of Education.....
 - (a) Is the Board active in enforcing the law?.....
- V. Attendance Officers.
 - (a) How employed (for full time or for actual services rendered)
 - (b) Amount of compensation.
 - (c) Are they competent and efficient?
- VI. Have attendance records been carefully kept?.....

VII. How many parochial schools in the place?.....
 How many private schools?.....
 (a) Do the teachers of these schools co-operate with the public school
 authorities in enforcing the law?.....

 (b) Are their attendance records carefully and accurately kept?

 (c) Are these records inspected by the attendance officers or other
 authorized persons?.....
 (d) How often are they so inspected?.....

VIII. Has a Truant School been established?.....
 (a) If so, give your opinion of its adaptability to the work.....

 (b) If not, have commitments been made elsewhere?.....

IX. Has a census been taken from which the actual resident population of
 all children between 8 and 16 years of age has been ascertained?

 (a) If so, give number of such children.....
 (b) What did you find the actual attendance of such children to be?

 (c) Were absentees properly accounted for?.....

X. Has attendance increased as a result of the enforcement of the law?

 (a) Has regularity in attendance increased?.....

XI. General Remarks:

 Signed,
 Assistant.

DIFFICULTIES MET WITH BY YOUR ASSISTANTS IN THEIR INSPECTION

All too frequently your assistants asked in vain for the census of the children. In many of the school districts a copy of the census, if any had been taken, could not be found, while in other instances when found it was absolutely useless, as it was a mere enumeration without names or ages. There is evidently too low an estimate placed on the value of an accurate census, and there should be some legislation tending toward its remedy. The bien-

nial school census for cities and villages of 10,000 inhabitants and over, should be extended to include the whole State, or the school law so amended as to require annually in each school district a census giving the names and residences of parents or guardians and the name, age and residence of each child under 18 years of age, instead of the mere enumeration as now required. This census should not only be filed with the annual report of the school authorities, but a copy or copies of the same should be furnished the superintendent and teachers, and be kept where it might be accessible for comparison with the actual enrollment.

I regret to say that it often happened that teachers were unable to properly account for the absentees, and in some instances not only seemed indifferent as to the attendance of children, but even expressed the opinion that it was not their duty to see that children attended school, but to teach them when there. Surely the broadest and deepest influence of this law will not be felt until the teachers fully appreciate its importance, and how necessary to its enforcement is their hearty support. Another difficulty occasionally encountered was inability to examine the school register, as it was left at the home of the teacher "to keep it clean and neat," and was posted but once a week. Cleanliness and neatness are virtues to be commended, but I am convinced that the place for the school register is in the school-house, and that the attendance of children should be recorded therein each day.

No portion of the work of your assistants has been more difficult to satisfactorily adjust than the relation of the private school to the public school. The teachers of many of these private schools promptly and cheerfully furnish information asked for by the public school authorities, and gladly make use of the services of the attendance officer, but the records of attendance kept by many others are so defective as to be almost useless, and information when asked for is given grudgingly, or flatly refused. Public school authorities also often fail to comprehend that the law places upon them the responsibility of knowing that every child in their city or district is in attendance upon instruction as required by its provisions, and confine their efforts to the public school children.

To remedy this evil I would recommend that registers of the same form as those prescribed for use in the public schools be furnished to private schools, and if the provision of the law as to "teachers' records of attendance" will admit of such an interpretation, require the teachers of such schools to furnish, at stated intervals or as requested by the public school authorities, written abstracts of their registers. If this section does not allow such an interpretation I would recommend that section six of the law be so amended as to require such written reports of attendance.

The enforcement of the Compulsory Education Law has brought to light a deplorable lack of school accommodations. Thousands of children in New York, Brooklyn, Buffalo and other large cities of the State have been denied the advantages of public school education because of inadequate accommodations. Uncompelled they have appeared and asked admission, only to be refused on the plea of lack of room. That this great State which boasts of its free public schools should be obliged to deny the privilege of free instruction to so many thousands is most reprehensible. It is a serious reflection on the conduct of our schools, for which our school officers are immediately responsible.

The school census of a year ago, and the forcing of children into school, in conformity with the provisions of the Compulsory Education Law, have made more evident than heretofore the demand for school accommodations and brought to light this most deplorable lack. A comparison of the total seating capacity of each of the 38 cities of the State, with the net enrollment of the same, discloses the fact that 21 of them fail to furnish sufficient sittings, while six of them have not as many sittings as their average daily attendance. A like state of affairs prevails in many of our larger villages. Are not school authorities derelict in duty when they fail to furnish accommodations equal to the demand? True wisdom would be displayed by such officers if these ever-increasing demands were anticipated. That these demands are increasing, past statistics prove. That they will continue to increase the following facts most conclusively show.

In September a blank was sent to all the cities, and villages employing a superintendent of schools in the State, asking for the total attendance, September 30, 1896, and the same for September 30, 1895. Answers were received from every city except New York, from which we find that there was an increased attendance in every city but two, Albany and Corning, and that the net increase in the cities was, 14,965. Of the 30 villages employing a superintendent of schools, 24 showed an increase in attendance and six a decrease, the net increase being 1,622.

Citizens of New York may feel a justifiable pride in the liberality shown in the support of their free school system, but the expression of that pride should be somewhat restrained as long as the metropolitan city of the State appropriates \$1,000,000 more for its police than for its schools, and suffers many thousands of her children to be deprived of the advantages of free education, guaranteed to them by the constitution of the State, through failure to provide the needed buildings and facilities for their instruction.

At the close of the school year the following general report was called for:

COMPULSORY EDUCATION LAW

- 1. The number of children over 8 and under 16 years of age, residing in the district on the 30th day of June, 1896, was.....
- 2. The number of such children who were enrolled as attending the district school some portion of the school year closing with July 31, 1896, was.....
- 3. The number of such children who were enrolled as attending private schools some portion of the school year closing with July 31, 1896, was.....
- 4. The average daily attendance of such children was, in district schools,; in private schools,.....
- 5. How many persons in parental relation to children have been arrested, fined or imprisoned for violation of Section 4 of the Compulsory Education Law? Arrested.....; fined.....; imprisoned.....
- 6. How many persons, firms or corporations, have been fined for unlawfully employing children between 8 and 14 years of age, contrary to the provisions of Section 5 of the Compulsory Education Law?.....
- 7. How many *arrests of truants have been made by your attendance officers?.....
- 8. How many children, arrested as habitual and incorrigible truants, have been committed to truant schools?.....
- 9. How many children have been committed to
Private schools Orphans' Homes
Similar institutions, viz.:
.....
.....

From the cities, villages and Union Free School districts, the following more extended schedule of questions was required.

SCHEDULE OF QUESTIONS RELATING TO THE COMPULSORY EDUCATION LAW AND ITS ENFORCEMENT IN FOR THE SCHOOL YEAR ENDING JULY 31, 1896.

- 1. Have the school authorities of your city or district, appointed an attendance officer, or officers, as required by Section 7, of the Compulsory Education Law?
- 2. How many such officers have been appointed?.... Compensation?....
- 3. Have you established a truant school in your city or district?.....
If not, have you contracted with any other city or district having a truant school, for the confinement, maintenance and instruction of your truant children?.....

*Arrest, question 7, means brought before magistrate.

4. Have your teachers kept an accurate record of the attendance of all children between 8 and 16 years of age, showing each day, by the year, month, day of the month and day of the week, such attendance, and the number of hours in each day thereof, as required by Section 6, of the Compulsory Education Law?.....
.....
5. How many children between 8 and 16 years of age have been instructed elsewhere than at the public school?.....
Has a like accurate record of their attendance been kept?.....
6. Have such records of attendance been open for inspection by the attendance officers or other duly authorized persons?.....
7. How many persons in parental relation to children have been arrested, fined or imprisoned for violation of Section 4 of the Compulsory Education Law? Arrested; fined; imprisoned
8. How many persons, firms, or corporations, have been fined for unlawfully employing children between 8 and 14 years of age, contrary to the provisions of Section 5, of the Compulsory Education Law?.....
.....
9. How many arrests of truants have been made by your attendance officers?
10. How many children, arrested as habitual and incorrigible truants, have been committed to truant schools?
11. How many children have been committed to
Private schools
Orphans' Homes
Similar institutions, viz.:
.....
.....
.....
12. Have the school authorities of your city or district prepared blanks to facilitate the proper execution of the law?.....
13. Do private and parochial schools heartily co-operate with the school authorities in the execution of the law?.....
14. Remarks as to the effect of the law:
.....
.....
.....
.....

Dated, 189 .

.....

Superintendent of Schools.

From these reports the following facts have been summarized, the statistics of each city being given in the table which follows.

	Number children committed to truant and other institutions	NUMBER OF PARENTS, OR GUARDIANS			Number persons, firms or corpo- rations fined for illegal employ- ment of children	Number attend- ance officers em- ployed
		Arrested	Fined	Imprisoned		
Albany	5	0	0	0	0	2
Amsterdam	0	1	0	0	0	1
Auburn.....	8	2	0	0	0	1
Binghamton.....	84	18	0	0	0	1
Brooklyn.....	118	0	0	0	0	9
Buffalo.....	25	4	2	0	0	5
Cohoes.....	0	0	3	0	0	1
Corning.....	0	0	0	0	0	1
Dunkirk.....	0	0	0	0	0	6
Elmira.....	2	0	0	0	0	1
Gloversville.....	3	2	0	0	0	1
Hornellsville.....	4	0	0	0	0	1
Hudson	0	1	1	0	0	1
Ithaca	0	0	0	0	0	1
Jamestown.....	0	1	0	0	0	1
Johnstown.....	0	5	0	0	0	1
Kingston.....	0	0	0	0	0	1
Little Falls.....	2	0	0	0	0	1
Lockport.....	5	0	0	0	0	1
Long Island City.....	2	0	0	0	0	1
Middletown	0	3	0	0	0	1
Mount Vernon.....	8	22	7	0	0	1
Newburgh.....	19	0	0	0	0	1
New York.....	30	39	0	0	0	20
Niagara Falls.....	2	19	0	0	0	1
Ogdensburg.....	3	10	0	0	0	1
Olean.....	0	5	0	0	0	1
Oswego	4	0	0	0	0	1
Poughkeepsie.....	3	0	0	0	0	1
Rochester.....	169	5	1	0	2	5
Rome.....	2	0	0	0	0	1
Schenectady.....	15	5	1	1	0	1
Syracuse.....	77	10	0	0	0	1
Troy.....	17	14	0	0	0	2
Utica	7	25	2	0	1	3
Watertown	6	0	0	0	0	1
Watervliet.....	0	0	0	0	0	2
Yonkers.....	25	1	0	0	0	1

A careful study of this table discloses many interesting facts, and from the same several inferences may be drawn.

First. It may not be reasonably assumed that the cities of Brooklyn, Rochester and Syracuse, which have established truant schools, have, by such a course, increased the disposition of the children to be truant, from instruction, but that the mere fact of having a truant school led the authorities to make use of the same and to place therein children inclined to truancy.

Second. The inference may also be drawn that not all the cities have enforced the provisions of the law with equal vigor, when a city of 40,000 inhabitants finds it necessary to commit seven times as many children to truant schools and other institutions as another city of twice the population, and to arrest a large number of

parents for violation of the law, while the second city makes no arrests.

Third. The method of administering the law seems to vary widely in different cities. Some seem to conclude that the only provision of the law requiring their attention is that pertaining to the arrest of truants, while others seem to believe that the parents are largely at fault, and require special attention.

Only three cities found it necessary to fine persons for illegal employment of children.

The whole number of children committed to truant schools and other institutions was:

In the cities.....	585
In the towns.....	85
	<hr/> <hr/>

The whole number of persons, in parental relation to children, arrested, was:

In the cities.....	201
In the towns.....	242
	<hr/> <hr/>

Of these persons, 61 were fined and 14 were imprisoned.

Only five persons, firms or corporations, in both cities and towns, were fined for illegal employment of children.

As was natural, the enforcement of the law in villages and union free school districts resulted in fewer commitments of children to truant institutions, but more frequent arrests of parents for negligence or indifference in requiring the attendance of their children at school, than in the cities.

The addition of 17,731 to the total enrollment of children, in spite of the reduction in school age from 21 to 18 years, and the increased per cent. of average daily attendance to total enrollment from 65.4 per cent. to 66.9 per cent. are statistical evidences of the salutary effect of the law.

The following extracts from reports indicate both the beneficial effects of the law and the hearty co-operation most of the people give the school authorities in their efforts to enforce it:

“Thirty-four children who otherwise would not have attended upon instruction were found by the attendance officer and placed in school. Only good results have followed its enforcement, and now that its provisions are more fully known and understood, and the good it is capable of accomplishing is somewhat better realized by all classes of people, its enforcement should be effected with more promptness and decision, though without harshness or lack of consideration.”

"The increase in attendance by reason of the Compulsory Education Law was rather more than was expected. Our ungraded room, to which we assigned those who can not get along with their regular teachers, and those who persist in truancy, has been a very great help indeed in many ways. It has relieved teachers from the annoyance and from the care of unruly pupils, made it possible to give such characters personal attention, prevented much contamination of the other children, and made the discipline throughout the city much easier to maintain. We spare no pains to avoid causing these children to feel that they are any less favored than others, and to make them love the school."

"The enforcement of the Compulsory Law has been successfully accomplished and with but little friction. The salutary effects of this law are very apparent in our city. Many children who previously have been detained for work, or who, through negligence or inattention of parents, have been irregular in attendance, are for the first time regular attendants at school."

"The Compulsory Law has been carefully enforced, and the authorities have met with but slight opposition in carrying out its provisions. The number of pupils registered in the public schools of our city for the past year exceeds the number for the next preceding year by 306, and the average daily attendance was greater by 317. The results of the law have been good."

"Last year we had 654 different children registered. This year we have had 791. The law is all right and the people are with us in its enforcement."

"The law has been extraordinarily beneficial, the attendance having increased materially. As the law becomes better known, parents all incline to assist in carrying out its provisions."

"The results of the Compulsory Law have been very beneficial to our schools. The attendance has improved ; the work also."

"The effect of the law has been good. The few arrests of parents have had a tendency toward more careful attention on the part of others to their children. Children are very submissive to the law, except where defended by parents, against whom we find most cause to proceed."

"It has increased our attendance 25 per cent. Has brought into school a class that we could not reach before. Under this law we have been able to grade our schools. Parents take more interest in school."

One report summarizes the effects of the law as follows:

- "1. Increase of from 50 to 75 pupils in attendance.
2. Improvement in punctuality as well as regularity of attendance.
3. Overcrowded condition of class-rooms.

4. Difficulty of grading pupils who come to us under the operation of the law.
5. Greater interest in school matters.
6. Absence of truants and loiterers from our streets.
7. Necessity for new buildings or enlargement of old.
8. Co-operation of parents in enforcement of law manifest."

The working of the law during the past year has made evident three needs essential to the fullest and most satisfactory enforcement.

First. Free text-books.

Second. The township system.

Third. State truant schools.

To compel parents who are blessed with a large family of children to spend a considerable portion of a meagre income in providing their children with school-books works in many instances a hardship. In this respect the Empire State is far behind her sister States. Every one of our neighbors has upon its statute-books a law by which text-books are furnished by general tax upon the property of the district for the free use of the pupils. New York should no longer withhold the advantages which the enactment of such a law would confer upon her school children.

The advantages of the township system have been so frequently and ably presented during the past few years that I will only add a word or two as to the special advantages that would result from its adoption, in the enforcement of the Compulsory Education Law. The enforcement of this law is supervised by the State Department of Public Instruction, and this work of supervision would be materially simplified if reports were received from less than 1,000 town boards of education rather than from nearly 12,000 such officers, as at present. A town board of education, whose especial function it was to supervise the school interests of the town, would no doubt, select better men to act as town attendance officers than is now done in most instances by the town boards. The need of the State truant schools can no longer be doubted. Self-protection should be the first law of the State, as it is of the individual. The truant child, brought up, as he often is, by parents who show little solicitude for his welfare, and who have no respect for law, but only fear its penalties, is in a fair way, if left unrestrained, to go in the criminal class and add materially to the burden of the State for his detention and maintenance in prison. If detention becomes necessary, is it not wiser on the part of the State to provide for it when there is hope of restoring the person to profitable citizenship than to defer action until habits have been formed that will render such restoration to citizenship impossible?

Superintendent Milton Noyes of Rochester, in a letter bearing date of September 9, 1896, writes as follows:

"Respecting the value of a school for the detention of and instruction of truants in this and in every city there is no question. The influence of our local truant school is apparent here and in surrounding counties. I estimate an increase of about a thousand pupils in our city schools as directly due to the maintenance of that school during the past eighteen months. Its value has reached beyond the mere question of increased attendance. It aids in the orderly operation of our schools and their discipline. It stimulates a wholesome respect for authority among all classes of persons. The inmates have imbibed many valuable lessons not the least of which are obedience, self-control, self-respect and love of study. A few well-equipped truant schools receiving commitments from surrounding districts would be of lasting value to the future welfare of the State."

Superintendent A. B. Blodgett of Syracuse, after giving the cost of maintaining their truant school and the expense per pupil on average daily attendance, adds: "Some superintendents may ask: 'Does it pay?' Yes, it does, and I had almost said, 'a thousand fold.' Surely any expense is proper in taking from the streets, from the slums and from a multitude of improper and vitiating surroundings the boys who have been accustomed to go their own way. While the attendants of the school have profited very materially and give promise of better things, the deterrent effect has perhaps been the most salient feature of the enforcement of the law. To my mind the best results can and will only be obtained when the State can see its way to establish several truant schools under the control of the State Department of Public Instruction. Smaller cities and towns as well as the country districts can not maintain a school that shall meet the provisions of one of the best laws that was ever enacted for the welfare of the careless and viciously inclined children of the commonwealth,"

Superintendent William H. Maxwell of Brooklyn, in an interview in the Brooklyn Eagle of June 7, 1896, speaking of the salutary effect of the detention of boys in their truant school says: "Those who have been feeling their way to the right management of this institution have often tried their experiments with fear and trembling for the result. They are not without evidence, however, that their experiments have been reasonably successful. Since February of the present year about twenty boys have been conditionally released; that is, because of apparent reformation they have been permitted to return to their day schools as long as their attendance is regular and their deportment good. So far, I am happy

to say, there has not been a single case of backsliding. Miss Augusta Beck, principal of No. 88, says of one boy: 'Since his return to us he has been a satisfactory member of our school.' Principal Harding of No. 83, says of another boy: '—— was a bad boy, a bad truant and not diligent in his work. * * * I want to say that I regard the influence exerted over the boys at the truant school as the very best; he has assumed an erect carriage as the result of the military training he received; his manner is more respectful, while before he went there it was sullen.' Principal Stebbins of No. 77, says of another boy whose record has been very bad: 'His record of scholarship and deportment is good for the time that he has been in attendance here.' Principal Murphy of No. 30, speaks of another boy as being 'regular in his attendance, well behaved and studious' since his return. Principal Dunkly of No. 16, says of still another boy: 'I take great pleasure in stating that his record with us is excellent. He is regular and punctual in attendance, studious in his habits, and in deportment, beyond reproach.' If the truant school does for all the boys committed to it what it has done for those above mentioned, its influence, both reformatory and deterrent, will be most beneficent."

Much additional testimony as to the value and need of truant schools is found in the reports of city and village superintendents printed elsewhere in your annual report. With the confident hope that the Legislature will complement the work so well begun by providing the means for the establishment of such schools, I am

Very respectfully,

A. M. WRIGHT.

December 1, 1896.

REPORT OF A. EDSON HALL

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction:*

Sir. —In compliance with your request, I herewith respectfully submit the following report in regard to the enforcement of the Compulsory Law.

My inspection during the year, includes 277 public, 44 parochial and 21 private schools.

After one year's experience in this work I find great satisfaction in making this report. I have found little opposition to the law. The people throughout the State were anxious for such a law, and as a rule were glad to enforce the same. I have found, however, places where the law was only in part enforced, and in a few instances inefficient attendance officers and a school board with

little or no backbone. Many arrests have been made and fines imposed. One father spent 30 days in jail for not complying with the law. In one village persons were arrested for employing children illegally and the fines received were sufficient to pay the salary of the attendance officer. The attendance officer has been a valuable agent in bringing to light destitute cases which heretofore were overlooked. It has been very gratifying to find how these destitute cases have been met. In one village the teachers and the ladies of the village organized a society which met on every other Saturday. Each member paid five cents at each meeting, and if absent was fined 10 cents. The work of the society was to make clothes and furnish shoes. In other cases the attendance officer calls on persons able and willing to furnish relief. Many of the school authorities have brought about an entire change of the attendance in their schools. One school of 148 pupils had not had a single case of absence or tardiness in 15 weeks. In other schools there were single grades without a case of absence or tardiness for a longer period. This, however, was not general. In one place the attendance officer, hearing that I was making an inspection, hustled about the village and brought in 12 truants, to show me that he was an efficient officer. I found upon investigation that this was his first effort. Many school authorities have been indifferent and thoughtless in the employment of attendance officers, and in arranging for the enforcement of the law. The work in the rural school districts has been very unsatisfactory. We trust that town attendance officers will be the means of bringing about greater results. I would recommend:

That each commissioner district be required to hold a trustees' and attendance officers' convention of at least one day's session. That the persons required to attend such convention be paid their expenses.

Second. That the biennial school census be extended to include the entire State.

Third. That the State establish and maintain a truant school.

Very respectfully,

A. EDSON HALL.

SARATOGA SPRINGS, N. Y., November 2, 1896.

REPORT OF WILLIAM J. BARR

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction:*

Sir.—In compliance with your request, I have the honor to herewith submit a brief report pertaining to the enforcement of the Compulsory Education Law.

Since the 1st of January I have made 185 personal inspections, and in connection therewith have visited 15 parochial schools, and held conferences with numerous representatives of town boards relative to the appointment of town attendance officers.

With a desire of securing future favorable results, I have endeavored, during such inspections, to offer helpful suggestions as to ways and means of judiciously enforcing the law rather than to criticise methods already used, unless such methods were unquestionably bad. Almost without exception, local authorities have understood the object and spirit of the inspection and have promptly furnished required information and have invited criticism and suggestions. This spirit of co-operation has been mutually helpful to the inspector and to the school. It has helped to establish a cordial and fraternal feeling between local authorities and the educational department of the State.

Although the conditions indicated have been general they have not been universal. The exceptions, however, are attributable to the fault of individuals rather than communities. The question as to the effect on trade or personal popularity has, in some instances, been paramount. Supervision exposes this subordination of official duty and cheap bid for local popularity. Results which have followed local organization prove that the non-enforcement of the law is due to a lack of effort rather than to a lack of ability.

Too much emphasis can not be placed on the importance of a careful selection of attendance officers. Such officers should be chosen with at least as much care as that exercised in selecting teachers. The latter follow established rules and regulations, those for the guidance of the former are in a formative stage. Truancy, in the majority of cases, is the fault of those in charge of the home life of the child, hence the attendance officer has the difficult task of educating adults. It is evident that to avoid antagonism and secure co-operation, it is necessary to command the services of an intelligent, manly, active and well balanced officer. Such an officer, like a competent teacher, will perform his duties without annoyance to the board of education, and such service should command a fair compensation.

The recently enacted amendments have materially strengthened the law. The provision for the appointment of town attendance officers is an especially commendable feature of such amendments. The change requiring proof of parental inability to compel attendance at school is another excellent amendment.

I have to report the helpful influence of the school for the detention and instruction of male truants maintained at Rochester. The authorities of this city arranged to receive truants from other cities

or school districts at the rate of \$3 per week each, such charge to include instruction, board and lodging. The records indicate that of the 135 inmates committed to this school last year 118 were residents of Rochester. The establishment of the school is certainly salutary, but it hardly seems creditable that the deterrent influence should be less marked at Rochester than elsewhere. Using the census of 1892 as a basis, Rochester committed an average of one truant for 1,210 inhabitants, and the balance of the territory in my division, excluding Syracuse and other cities having ungraded or truant rooms, an average of one for 87,900 inhabitants. Had the territory indicated made commitments in the same proportion to population as Rochester, there would have been 1,235 instead of 17 commitments. It is a fact that incorrigibles are not receiving due attention throughout the State.

It is obvious that, under the present law, truant schools have become a necessity. Local authorities are unwilling to establish such schools, especially such as will meet reasonable requirements. The logical outcome of the law would seem to indicate the wisdom of the establishment by the State of a school or schools for habitual and incorrigible truants. I trust this matter will receive the attention its importance demands, and that favorable legislative action will result.

Since private and parochial schools are required to keep a register of attendance and to furnish such information in connection therewith as may be required, I suggest that to secure uniformity and accuracy such schools be furnished with registers.

In closing my report, I desire to reaffirm my fixed belief in the efficacy of the Compulsory Law. It inculcates habits of punctuality, regularity, self-reliance and self-control. It gives additional dignity to the position of teachers, school officers and to school work.

Very respectfully,

WILLIAM J. BARR.

BATAVIA, N. Y.

EXHIBIT No. 19

*FIRST BIENNIAL SCHOOL CENSUS

1. THE LAW AND ITS ENFORCEMENT
2. SPECIMEN BLANKS USED
3. SUMMARY AND AFFIDAVIT OF ENUMERATORS
4. TABULATION OF ATTENDANCE
5. TABULATION OF SPECIAL STATISTICS

*Reprinted for reference from the Report of 1896.

***FIRST BIENNIAL SCHOOL CENSUS**

1. THE LAW AND ITS ENFORCEMENT

The Legislature of 1895 enacted a law providing that a school census should be taken in October, 1895, and every two years thereafter, in all towns and villages having a population of ten thousand and upwards. The duty of supervising this census was delegated to the State Department of Public Instruction, and the results obtained are given in the appended tables.

The law in full is as follows:

CHAPTER 550 — LAWS OF 1895

An Act in Relation to a Biennial School Census

Became a law May 7, 1895, with the approval of the Governor. Passed, three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. It shall be the duty of the State Superintendent of Public Instruction, to take or cause to be taken, in the next ensuing October after the enactment of this law, and thereafter in every second year in the month of October, a school census, in all towns and cities of the State having a population of ten thousand or upwards, which shall ascertain the following facts, and he shall embody a summary of the same in his annual report, for the year in which said census is taken, viz.: the names and ages of all persons between the ages of four and sixteen; the number of persons in each town or city coming within the application of this law, between the ages of twelve and twenty-one years, that are unable to read or write; the number of persons over four and under sixteen years of age who do not attend school because they are obliged to work within school hours; the number of persons between four and sixteen years who are attending other than public schools; and such other facts as in his judgment may be of importance in securing the information needed to carry out the requirements of article nine, section one, of the State constitution, or for the improvement of the common school system.

§ 2. In taking this school census, the Superintendent of Public Instruction is authorized to determine the work to be done by

all of the common school authorities and employes under his superintendency, and it shall be the duty of all such authorities and public officers having any civil authority in connection with the common school administration of the State or of said city or town, to aid said Superintendent in all proper ways in the discharge of his duties under this act.

§ 3. Whoever, being any parent or person having under his or her control, or in his or her charge, a child between the ages of four and sixteen years, refuses or withholds information in his or her possession, sought by said Superintendent or his representative for the purpose of a school census, or falsifies in regard to the same, shall be liable to and punished by fine not exceeding twenty dollars, or by imprisonment not exceeding thirty days.

§ 4. The money required for the purpose of carrying this act into effect shall be paid by the towns and cities respectively included in the provisions of the act, and shall be paid for the service rendered in taking the school census, on the certificate of the State Superintendent that such census has been satisfactorily taken.

§ 5. This act shall take effect immediately.

A careful estimate based on the national census of 1890 and the State enumeration of 1892, placed all the cities of the State above the ten thousand population limit, and also seven of the incorporated villages. The census was accordingly ordered for these places.

In explanation of the foregoing law the following circular was prepared and sent out by the Department on October 4, 1895 :

STATE OF NEW YORK,
DEPARTMENT OF PUBLIC INSTRUCTION,
ALBANY, October 4, 1895. }

To City and Village Superintendents:

Under the authority conferred upon me by chapter 550, Laws of 1895, entitled "An act in relation to a biennial school census," I have caused blanks to be prepared which you will use in taking the said census. These blanks will be found in book form, each book furnishing space for twelve hundred names. These books will be ready for distribution about the tenth of October, and will be furnished you in such numbers as you shall require at cost. Please forward to the Department at once your estimate of the number you will need, and make a remittance sufficient to cover cost of same at 30 cents per book. The books will then be shipped to you express paid and receipt given.

By a ruling of this Department, the census will be taken in all cities and also in incorporated villages of the State having a population of 10,000 or upwards. Villages claiming a population of 10,000 will have their claims taken under consideration. The

census will be taken between the fourteenth and thirty-first days of October, and a sufficient number of enumerators should be employed to faithfully and accurately perform the required work within the time specified. Enumerators should study carefully instructions given on the "Specimen page," inserted in the front of each book, and you are earnestly requested to see that these instructions are understood and followed.

It is further recommended that boards of education wherever practicable and advisable employ the most efficient teachers connected with their public schools to act as enumerators, provided the time in which the census is to be taken will admit of it. Each enumerator should be required, after completing the census of his district, to fill out the "summary" in the back of the book or books, and make affidavit thereto, and a careful and accurate summary of the school census of the entire city or village should be compiled therefrom, the compilation for cities being extended by wards, as indicated by the "compilation blanks," which will be sent you with the census books. This will necessitate the taking of the census by wards, and care should be exercised in assigning districts, that ward lines are observed. General qualifications requisite for appointment as enumerators are good penmanship, accurate spelling, good general information, sound judgment and discretion. In certain localities special qualifications may be essential. Each enumerator will be entitled to not less than three dollars for each eight hours of service.

The appointment of these enumerators is made from this Department, and you will please have your board of education submit for your approval their recommendations for such appointments as soon as possible.

The expense incurred in taking this census will be a charge against the villages and cities respectively, as per section 4 of the law, a copy of which is herewith enclosed. The books in which the census is taken will be the property of the city or village, and should be filed for future reference. The "compilation blanks" will be sent in duplicate, and one copy must be returned to this office as soon as completed.

Yours respectfully,

CHARLES R. SKINNER.

State Superintendent.

In only two or three places was it found practicable to make use of teachers as enumerators, and appointments were generally made upon the recommendation of the board of education or school superintendents of the cities. In New York and Brooklyn the census was taken by the police.

Under the discretionary power vested in the Superintendent by the last clause of section one of the law, the names and ages of all persons between sixteen and twenty-one were included in the enumeration, although not specifically called for in the act. It was felt that so long as the school age remained between five and twenty-one years, accurate estimates and comparisons could not be made unless this additional information was obtained.

The items of information gathered were the name, age and sex of every person between the ages of four and twenty-one; the number attending school ; number attending other than public schools ; number at work during school hours; number truant from school; number between twelve and twenty-one who can not read or write English; number between twelve and twenty-one who do not speak English; number of deaf and dumb; number of blind. These items were subdivided according to the ages and sex of the enumerated.

The facts after being summarized were transferred to compilation blanks and forwarded to this Department. Tables Nos. 4 and 5 form a specimen sheet of this compilation blank as used by the cities, if a list of wards is substituted for the list of cities in the first column.

The expense of taking the census was a charge upon the cities and villages, and in all cases was paid on the certificate of the State Superintendent that such census was satisfactorily taken.

The taking of the census was attended by no unpleasant features in any city, and the complete success of the initial trial of the law speaks well for the energy and executive ability of the city and village superintendents who had special supervision over it.

The following tables show concisely the amount of work done, methods of doing it and the results.

Number of enumerators employed by each city and the number of census books required for the enumeration.

City	Number of enumerators	Number of census books
Albany	19	30
Amsterdam	7	7
Auburn	6	10
*Binghamton	13	16
Brooklyn	Police.	800
Buffalo	52	100
Cohoes	10	10
Corning	6	5
Dunkirk	4	4
Elmira	9	9
Gloversville	8	6

*Census taken by teachers.

FIRST BIENNIAL SCHOOL CENSUS

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City	Number of enumerators	Number of census books
Hornellsville	7	7
Hudson	10	10
Ithaca	4	4
Jamestown	6	12
Johnstown	4	4
Kingston	9	10
Little Falls	4	6
Lockport	6	8
Long Island City	10	20
Middletown	3	5
Mount Vernon	10	10
Newburgh	4	8
New York	Police.	1,700
Niagara Falls	3	8
Ogdensburg	4	5
Olean	1	6
Oswego	5	10
Poughkeepsie	4	11
Rochester	40	60
Rome	7	5
Schenectady	2	8
Syracuse	40	50
Troy	28	28
Utica	17	20
Watertown	3	6
Yonkers	7	20
		<hr/>
		3,038
		<hr/>

Village	Number of enumerators	Number of census books
Glens Falls	4	7
Lansingburgh	3	6
Peekskill	6	8
Port Jervis	1	3
*Saratoga Springs	27	27
Westchester	2	2
West Troy	8	8
		<hr/>
		61
		<hr/>

*Census taken by teachers.

2. SPECIMEN BLANKS USED

[The following are specimen pages from the census enumeration books used in taking the biennial school census]
This is exclusively a school census.—This book must contain only the names of persons over 4 and under 21 years of age.

SPECIMEN PAGE.

1	2	3	4	5	6	7	8	9	10	11	12	13
STREET OR AVENUE	NO.	NAMES OF ALL PERSONS OVER 4 AND UNDER 21 YEARS OF AGE	AGE	SEX	RACE	Attending public school	Attending other than public school.	At work during school hours.	Truant from school	Can not read or write English	Does not speak English	REMARKS
Prince	72	James Martin Underhill	6	M	C	X			X	X		Grammar School No. 11
East 10th	214	Mary Ann Brown	11	F	C			X				Refused admission
Genesee	28	.....	14	M	C			X				Invalid, blind, deaf and dumb, etc.
Madison Avenue	139	Bristol	9	F	C		X					Irrepressible Street School
Spring	74	.....	19	M	A							St. Joseph's Academy.
Front	195	Mary O'Hara	15	F	C							

INSTRUCTIONS FOR ENUMERATORS

- In column 1 write the name of street or avenue.
- In column 2 write the street number.
- In column 3 write the name of person in full.
- In column 4 write figures indicating age last birthday.
- In column 5 use the letter M to indicate male and the letter F to indicate female.
- In column 6 use the letter C to indicate Caucasian or white, the letter E to indicate Ethiopian or negro, the letter M to indicate Mongolian or yellow, the letter A to indicate American or red. In case of mixed race explain under 13, as father M, mother C.
- In column 7 mark with X in case the person is attending public school.
- Indicate facts for columns 8, 9, 10, 11 and 12 in like manner.
- Give facts for persons between 4 and 16 years only under columns 7, 8, 9 and 10.
- Give facts for persons between 12 and 21 years only under columns 11 and 12.
- In column 13 write any explanation, e. g., Name of public school, name of private school, reason for absence from school or truancy, blind, deaf and dumb, cripple, etc.

FIRST BIENNIAL SCHOOL CENSUS

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1	2	3	4	5	6	7	8	9	10	11	12	13
STREET OR AVENUE	NO.	NAMES OF PERSONS OVER 4 AND UNDER 21 YEARS ONLY	AGE	SEX	RACE	BETWEEN 4 AND 16 ONLY				BETWEEN 17 AND 21 ONLY		REMARKS
						Attending public school	Attending other than public school	At work during school hours	Truant from school	Can not read or write English	Does not speak English	

8. SUMMARY AND AFFIDAVIT OF ENUMERATOR

The following is a summary which was placed at the end of each census enumeration book and from which our compilation blanks were made out:

SUMMARY

1. Number of persons over 4 and under 21 years of age:

Male	4
Female .....	.....
Total .....	.....

2. Number of each race:

Level of skull table.	
Caucasian	{ Male Female
Ethiopian	{ Male Female
Mongolian	{ Male Female
American	{ Male Female

2. Number attending public school:

Between 4 and 8.....	{	Male.....
		Female.....
Between 8 and 12.....	{	Male.....
		Female.....
Between 12 and 14.....	{	Male.....
		Female.....
Between 14 and 16.....	{	Male.....
		Female.....

4. Number attending other than public school:

Between 4 and 8.....	{	Male.....
		Female.....
Between 8 and 12.....	{	Male.....
		Female.....
Between 12 and 14.....	{	Male.....
		Female.....
Between 14 and 16.....	{	Male.....
		Female.....

5. Number at work during school hours:

Between 4 and 8.....	{	Male.....
		Female.....
Between 8 and 12.....	{	Male.....
		Female.....
Between 12 and 14.....	{	Male.....
		Female.....
Between 14 and 16.....	{	Male.....
		Female.....

6. Number truant from school:

Between 4 and 8.....

{ Male.....
Female.....

Between 8 and 12.....

{ Male.....
Female.....

Between 12 and 14.....

{ Male.....
Female.....

Between 14 and 16.....

{ Male.....
Female.....

7. Number between 12 and 21 who can not read or write English:

Male

Female

8. Number between 12 and 21 who do not speak English:

Male

Female

9. Number of deaf and dumb:

Male

Female

10. Number of blind:

Male

Female

(Signed)
Enumerator.

STATE OF NEW YORK, } ss.:
County of.....

....., being duly sworn, deposes and says that
he is the person named in the foregoing enumeration or school census, taken in the town
of..... in said county, as the enumerator, and who signed the summary
therein; and that the foregoing census and summary are correct and true to the best
of his knowledge, information and belief.
.....
Enumerator.

Subscribed and sworn to before me this }
.....day of....., 189 . }
.....

FIRST BIENNIAL SCHOOL CENSUS

4. COMPILATION BLANK No. 1.—ATTENDANCE

Population by cities and villages, of the school children between 4 and 16 years of age, classified by ages and sexes, also statistics as to school attendance, public or private

CITIES	MALES														
	BETWEEN 4 AND 8			BETWEEN 8 AND 12			BETWEEN 12 AND 14			BETWEEN 14 AND 16			Truant		
	In school		Out	In school		Out	In school		Out	In school		Out			
	Public	Other		Public	Other	Employed	Truant	Public	Other	Employed	Truant	Public		Other	Employed	Truant
Albany.....	1,714	634	744	2,081	884	4	14	1,082	425	67	10	635	237	672	20
Amsterdam.....	315	73	282	456	119	3	11	147	65	21	14	94	47	154	25
Arbura.....	368	85	263	640	238	0	11	253	151	3	4	187	51	155	14
Binghamton.....	767	61	339	1,076	56	0	5	503	19	10	3	369	14	111	8
Brooklyn.....	14,963	6,905	21,558	27,370	7,865	149	637	10,644	2,530	1,401	456	4,759	1,758	7,739	450
Buffalo.....	6,522	2,237	7,325	7,982	3,978	87	163	3,039	1,232	499	115	1,290	523	1,503	60
Cohoes.....	343	174	268	411	423	8	15	220	187	45	16	63	54	372	10
Corning.....	307	7	117	312	2	1	4	157	2	9	2	121	3	60	1
Dunkirk.....	151	80	213	246	187	0	0	103	71	5	0	70	27	50	0
Elmira.....	452	105	465	978	151	.....	1	447	55	7	3	348	49	143	2
Gloversville.....	286	8	207	528	1	1	7	196	1	16	8	154	4	58	7
Hornellsville.....	183	36	191	276	78	0	0	146	41	2	0	126	23	50	3
Hudson.....	154	56	70	224	62	0	7	120	27	5	1	62	15	30	4
Ithaca.....	144	61	115	253	72	0	2	136	26	1	5	115	22	12	2
Jamestown.....	402	19	242	669	56	1	8	304	15	3	2	192	10	85	8
Johnstown.....	236	1	100	273	0	0	1	134	1	1	2	107	0	32	0
Kingston.....	398	100	339	641	180	10	2	270	63	23	4	195	31	126	1
Little Falls.....	132	66	87	198	93	0	1	94	51	1	0	69	28	61	0
Lockport.....	331	70	179	438	127	1	4	248	59	3	8	196	18	52	20
Long Island City.....	909	100	1,067	1,523	182	8	43	609	67	23	30	220	61	316	98
Middletown.....	279	46	150	342	45	1	0	135	29	12	0	70	11	90	2
Mount Vernon.....	351	92	184	491	93	0	0	222	27	3	0	157	34	54	0

Newburgh.....	280	158	391	568	230	47	20,044	108	11	21	180	60	124	48
New York	23,108	10,773	82,636	45,717	12,038	216	5,308	5,308	744	167	9,213	8,771	9,884	171
Niagara Falls.....	850	64	194	400	106	13	188	55	4	9	106	31	83	13
Oriskany.....	254	111	102	367	186	9	150	77	3	4	126	30	99	12
Olean.....	165	26	96	248	71	0	124	38	2	0	66	15	52	0
Owego.....	453	132	406	621	239	7	307	98	10	11	192	66	182	18
Poughkeepsie.....	243	64	298	549	135	16	284	51	9	12	214	62	206	49
Rochester.....	8,195	1,231	1,145	8,402	2,070	49	1,368	661	125	28	632	242	692	30
Rome.....	185	67	123	287	70	1	128	8	18	7	72	8	52	8
Schenectady.....	296	119	472	531	208	13	253	74	20	9	156	16	148	26
Syracuse.....	1,685	364	1,298	2,634	579	44	1,876	208	99	29	801	182	668	33
Troy.....	664	635	402	1,076	409	23	543	336	62	16	277	162	276	9
Utica.....	718	290	896	1,284	526	27	660	238	20	10	375	126	264	35
Watertown.....	380	63	185	537	43	8	220	11	14	3	150	23	51	1
Yonkers.....	595	282	561	854	368	4	359	163	4	0	228	66	226	1
Total for cities.....	61,517	23,398	78,667	100,543	33,289	1,411	45,568	12,641	8,310	1,063	28,397	7,798	24,830	1,166
VILLAGES														
Glens Falls.....	190	108	75	294	152				4	2	64	67	71	16
Laurensburgh.....	304	39	71	340	62				1	1	83	27	44	3
Pekskill.....	181	26	75	252	24				3	1	96	20	38	4
Port Jervis.....	206	27	56	319	20				4	5	115	2	25	4
Saratoga Springs.....	208	2	78	361	4				1	1	129	6	36	6
Westchester.....	86	17	78	131	18				4	0	63	18	25	0
West Troy.....	222	123	123	314	121				25	4	81	45	102	4
Total for villages.....	1,496	396	556	1,951	421				42	14	631	185	341	87
Total for cities and villages.....	63,013	25,729	74,243	108,494	33,710				3,352	1,017	29,028	7,983	25,171	1,253

COMPILATION BLANK NO. 1.—ATTENDANCE—(Continued)

Population by cities and villages, of the school children between 4 and 16 years of age, classified by ages and sexes, also statistics as to school attendance, public or private

CITIES	FEMALES												TOTAL POPULATION OF MALES AND FEMALES BETWEEN 4 AND 16 YEARS OF AGE			
	BETWEEN 4 AND 8			BETWEEN 8 AND 12			BETWEEN 12 AND 14			BETWEEN 14 AND 16						
	In school		Out	In school		Out	In school		Out	In school		Out				
	Public	Other		Public	Other	Employed	Trust	Public	Other	Trust	Public	Other		Employed	Trust	
Albany	1,004	602	769	2,120	970	7	6	1,025	416	53	2	633	271	494	12	18,353
Amsterdam	303	51	285	490	145	10	17	191	56	27	16	100	82	189	36	8,784
Auburn	351	124	291	628	244	0	7	251	173	9	2	201	63	113	9	4,943
Binghamton	810	53	236	1,043	39	1	1	519	40	8	2	363	30	90	3	8,784
Brooklyn	14,728	8,578	22,044	26,728	8,018	312	540	10,702	2,703	1,497	434	5,721	2,104	6,872	451	218,007
Buffalo	6,374	2,207	7,268	7,923	3,923	47	127	2,937	1,157	689	31	1,390	576	1,296	33	72,516
Cohoes	368	186	304	423	403	7	15	235	186	51	20	81	43	432	12	5,380
Corning	292	11	128	320	3	1	1	173	2	6	1	113	1	26	2	2,186
Dunkirk	155	57	217	232	185	0	0	109	81	7	0	61	43	59	0	2,449
Elmira	504	80	470	839	133	0	4	544	72	12	3	352	73	117	3	5,528
Flora	431	14	170	473	2	2	3	224	2	23	5	159	1	40	4	3,137
Hornellsville	207	27	63	277	64	1	2	136	43	2	2	118	27	37	2	2,202
Hudson	125	55	79	235	70	1	1	97	24	5	1	88	18	49	3	1,692
Utica	124	66	115	263	73	0	2	148	40	1	8	189	43	10	2	2,004
Jamestown	417	28	210	820	43	3	3	305	24	4	9	192	12	91	18	4,007
Johnstown	242	5	116	297	2	0	2	180	0	3	4	146	0	32	0	1,843
Kingston	375	111	370	598	240	7	0	280	99	15	0	160	46	143	0	4,331
Little Falls	94	65	78	213	93	0	0	90	60	1	0	47	32	55	0	1,890
Lockport	286	77	193	436	163	0	4	365	64	0	4	163	23	37	13	3,436
Long Island City	350	119	1,121	1,363	203	5	27	568	72	39	31	247	56	276	119	10,355
Middletown	282	44	164	317	54	1	0	156	20	19	0	70	27	90	0	2,439
Mount Vernon	321	113	190	486	93	0	0	210	36	5	0	178	36	45	0	3,440

Newburgh.....	292	103	407	513	233	3	61	246	111	7	21	198	54	97	55	4,903
New York.....	21,748	10,781	32,532	45,234	13,690	215	179	19,523	4,909	1,108	167	9,197	3,324	10,735	83	847,094
Niagara Falls.....	294	59	218	406	98	0	26	169	54	8	8	144	38	54	16	2,153
Ogdensburg.....	219	95	163	297	188	4	15	165	61	9	5	105	38	54	15	2,019
Olean.....	168	36	93	270	55	0	0	127	28	1	0	99	13	16	0	1,809
Oswego.....	499	124	370	592	230	5	7	267	105	18	7	210	49	126	5	5,849
Poughkeepsie.....	367	82	301	593	148	0	18	278	57	1	18	213	56	150	122	4,653
Rochester.....	3,018	1,294	1,226	3,429	2,040	14	16	1,321	699	110	40	746	825	498	58	29,759
Rome.....	209	59	121	296	108	1	3	148	32	8	4	76	12	43	4	2,167
Schenectady.....	274	120	464	611	260	1	20	242	93	21	15	140	38	121	47	4,771
Syracuse.....	1,727	437	1,486	2,774	720	6	15	1,321	237	90	11	943	174	548	23	20,466
Troy.....	693	654	435	974	901	4	25	541	325	61	8	258	174	352	12	10,705
Utica.....	711	278	855	1,269	416	5	38	569	189	32	0	399	70	216	31	10,596
Watertown.....	335	46	188	585	43	0	10	245	19	8	4	185	13	39	4	3,412
Yonkers.....	588	353	528	768	434	1	0	330	183	4	9	226	137	204	0	7,494
Total for cities.....	60,423	25,256	74,459	104,945	34,791	563	1,208	44,881	12,610	3,907	872	23,884	8,081	23,265	1,197	841,314
VILLAGES																
Glens Falls.....	193	96	64	277	172	0	8	129	66	6	10	60	80	69	4	2,408
Lansingburgh.....	289	42	83	333	76	2	2	161	36	3	4	62	33	54	13	2,386
Peekskill.....	161	26	77	270	37	.....	9	132	34	10	3	84	47	32	17	1,794
Port Jervis.....	185	15	65	294	24	0	0	150	7	0	0	130	4	13	0	1,817
Saratoga Springs.....	341	0	85	347	10	0	0	201	22	1	4	212	22	9	7	2,361
Westchester.....	85	16	75	160	32	1	3	75	13	2	1	59	15	16	0	1,075
West Troy.....	243	103	140	336	112	9	4	121	55	22	1	58	49	112	8	2,717
Total for villages.....	1,497	298	589	2,017	463	12	26	969	233	44	23	685	250	305	44	14,558
Total for cities and villages.....	61,920	25,554	75,048	106,962	35,254	575	1,229	45,850	12,843	3,951	895	24,569	8,331	23,570	1,241	855,872

FIRST BIENNIAL SCHOOL CENSUS

5. COMPILATION BLANK No. 2.—NATIONALITY, DEFECTIVES, ENGLISH LANGUAGE

Giving by cities and villages the number of persons between 4 and 21 years of age of each sex and race, the number of deaf and dumb, the number of blind, and the number of persons between 12 and 21 years of age who can not read or write English and of those who do not speak English

CITIES	NUMBER OF CAUCASIAN OR WHITE			NUMBER OF ETHIOPIAN OR NEGRO			NUMBER OF MONGOLIAN OR YELLOW			NUMBER OF AMERICAN OR RED		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Albany	12,888	12,886	24,774	89	126	215	.....	.....	.....	.....	.....	.....
Amsterdam	2,494	2,567	5,061	14	18	32	.....	.....	.....	.....	.....	.....
Auburn	3,403	3,442	6,845	44	40	84	.....	.....	.....	.....	.....	.....
Binghamton	4,838	4,534	8,872	44	48	92	.....	.....	.....	.....	.....	.....
Brooklyn	134,060	135,327	269,387	1,841	1,557	2,898	14	6	20	73	69	142
Buffalo	48,840	47,842	96,182	120	111	231	.....	.....	.....	.....	.....	.....
Cohoes	3,482	3,616	7,098	.....	.....	.....	.....	.....	.....	.....	.....	.....
Corning	1,380	1,815	2,695	11	18	29	.....	.....	.....	.....	.....	.....
Dunkirk	1,539	1,623	3,162	.....	.....	.....	.....	.....	.....	.....	.....	.....
Elmira	3,858	4,082	7,940	71	69	140	.....	.....	.....	.....	.....	.....
Gloversville	2,064	2,157	4,221	19	17	36	.....	.....	.....	.....	.....	.....
Hornellsville	1,414	1,455	2,869	11	4	15	.....	.....	.....	.....	.....	.....
Hudson	1,040	1,078	2,118	27	24	51	.....	.....	.....	.....	.....	.....
Ithaca	1,839	1,444	2,783	24	34	58	.....	.....	.....	.....	.....	.....
Jamestown	2,746	2,696	5,442	22	16	38	.....	.....	.....	.....	.....	.....
Johnston	1,187	1,204	2,481	16	18	29	.....	.....	.....	.....	.....	.....
Kingston	3,198	3,867	6,565	54	61	115	.....	.....	.....	.....	.....	.....
Little Falls	1,177	1,205	2,382	6	8	14	.....	.....	.....	.....	.....	.....
Lockport	2,241	2,320	4,561	28	80	108	.....	.....	.....	.....	.....	.....
Long Island City	6,522	6,408	12,930	38	35	63	.....	.....	.....	.....	.....	.....

COMPILATION BLANK No. 2.—NATIONALITY, DEFECTIVES, ENGLISH LANGUAGE—(Continued)

Giving by cities and villages the number of persons between 4 and 21 years of age of each sex and race, the number of deaf and dumb, the number of blind, and the number of persons between 12 and 21 years of age who can not read or write English and of those who do not speak English.

CITIES	NUMBER OF DEAF AND DUMB			NUMBER OF BLIND			NUMBER BETWEEN 12 AND 21 YEARS WHO CAN NOT READ OR WRITE ENGLISH			NUMBER BETWEEN 12 AND 21 YEARS WHO DO NOT SPEAK ENGLISH			TOTAL POPULATION BETWEEN 4 AND 21 YEARS OF AGE
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Albany.....	12	5	17	4	3	7	50	35	85	10	9	19	24,989
Amsterdam.....	1	.....	1	.....	.....	.....	.....	2	2	.....	.....	.....	5,093
Auburn.....	4	2	6	.....	.....	.....	2	1	3	.....	.....	.....	6,929
Binghamton.....	1	5	6	.....	.....	1	2	2	4	.....	2	2	8,964
Brooklyn.....	63	105	168	23	28	46	709	966	1,675	377	547	924	272,447
Buffalo.....	73	72	145	3	6	9	374	437	811	130	277	407	96,413
Cohoes.....	1	2	3	.....	.....	.....	95	131	226	3	6	9	7,098
Corning.....	.....	2	2	.....	.....	.....	7	8	10	1	1	2	2,724
Dunkirk.....	1	.....	1	.....	.....	.....	17	20	37	3	5	8	3,162
Elmira.....	3	2	5	.....	1	1	11	12	23	3	3	6	8,080
Gloversville.....	.....	1	1	.....	.....	.....	4	7	11	2	3	5	4,257
Hornellville.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	2,884
Hudson.....	.....	.....	.....	.....	.....	.....	.....	2	2	.....	1	1	2,169
Ithaca.....	1	.....	1	2	.....	2	1	.....	1	1	.....	1	2,841
Jamestown.....	1	.....	1	.....	.....	.....	6	11	17	5	5	10	5,480
Johnstown.....	.....	.....	.....	1	.....	1	2	2	4	2	2	4	2,510
Kingston.....	.....	2	2	2	1	3	12	4	16	2	1	3	6,680
Little Falls.....	4	.....	4	.....	.....	.....	2	.....	2	.....	.....	.....	2,396
Lockport.....	1	2	3	.....	.....	.....	3	4	7	.....	.....	.....	4,617
Long Island City.....	1	1	1	1	2	10	10	20	8	8	16	12,998

FIRST BIENNIAL SCHOOL CENSUS

Middletown.....	1	1
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EXHIBIT No. 20

ARBOR DAY

- 1. LAW ESTABLISHING ARBOR DAY**
 - 2. GOVERNOR MORTON'S LETTER**
 - 3. STATE SUPERINTENDENT'S LETTER TO SCHOOL OFFICERS AND
TEACHERS**
 - 4. STATE SUPERINTENDENT'S LETTER TO THE CHILDREN**
 - 5. SUGGESTIONS FOR PROGRAMS**
 - 6. SPECIMEN PROGRAMS**
 - 7. SECRETARY MORTON'S LETTER**
 - 8. SELECTIONS APPROPRIATE FOR ARBOR DAY PROGRAMS**
 - 9. MUSIC APPROPRIATE FOR ARBOR DAY PROGRAMS**
-

ARBOR DAY, MAY 8, 1896

1. LAW ESTABLISHING ARBOR DAY

Article 15, title 15 of the "Consolidated School Law," chapter 556 of the Laws of 1894:*

Section 44. The Friday following the first day of May in each year shall hereafter be known throughout this State as Arbor Day.

§ 45. It shall be the duty of the authorities of every public school in this State to assemble the scholars in their charge on that day in the school building, or elsewhere, as they may deem proper, and to provide for and conduct, under the general supervision of the city superintendent or the school commissioner, or other chief officers having the general oversight of the public schools in each city or district, such exercises as will tend to encourage the planting, protection and preservation of trees and shrubs, and an acquaintance with the best methods to be adopted to accomplish such results.

§ 46. The State Superintendent of Public Instruction shall have power to prescribe, from time to time, in writing, a course of exercises and instruction in the subjects hereinbefore mentioned, which shall be adopted and observed by the public school authorities on Arbor Day, and upon receipt of copies of such course, sufficient in number to supply all the schools under their supervision, the school commissioner or city superintendent aforesaid shall promptly provide each of the schools under his or their charge with a copy, and cause it to be adopted and observed.

§ 47. The Legislature shall annually make an appropriation for carrying out the provisions of this act, upon the recommendation of the Superintendent of Public Instruction.

*Re-enacting chapter 196, Laws of 1882.

A SPECIAL WORD TO THE SCHOOL CHILDREN

The State Superintendent of Public Instruction invites and urges every pupil in the public schools of the State to commit to memory a sentiment appropriate to Arbor Day for recitation either in public exercises arranged for the school, or at home.

STATE OF NEW YORK

DEPARTMENT OF PUBLIC INSTRUCTION

ARBOR DAY ANNUAL

MAY 8, 1896

HORACE MANN CENTENNIAL

Public attention is invited to the fact that May 4, 1896, will be the One-hundredth Anniversary of the birth of Horace Mann whose life was unselfishly devoted to educational work. He was a friend of the common schools and a promoter of public education. His name is an inspiration to all who love the schools. It is recommended that this Anniversary be given public recognition in all the schools of the State by such appropriate exercises as may be arranged. Certainly every school-house should display the National Flag on that day in honor of Horace Mann.

Governor Morton's Letter

14 March 1896

Beautifying school
and home grounds
with trees, emphasizes
obedience to that
higher law which
adorns character
and life with
whatever is pure,
noble, and of good
repute.

Levi P. Morton

We should so live and labor in our time, that what comes to us as seed should go to the next generation as blossom ; and what comes to us as blossom should go to them as fruit.—*Henry Ward Beecher*.

Superintendent's Letter

To School Officers and Teachers :

The attention of school authorities and teachers is earnestly invited to the proper observance of Arbor Day throughout this State on May 8. Established by statutory enactment in New York State in 1888 and first observed in 1889, the novelty of Arbor Day has largely passed away. The worth and influence of the day, however, are becoming more evident year by year. Its influence has reached nearly every school district. Enthusiasm in its observance has been intensified as its results have become more manifest. Its influence has passed beyond the bounds of the schools and has been potent in awakening interest and in directing attention to the need of a better care of our shade trees and a more rigid protection of our forests. The proper care and love of trees has naturally begotten a greater love for nature and her creations. The commendable custom of planting and of naming trees after our national patriots and leaders of thought has proven a new vow to liberty and a fresh offering to worth.

Let school supervisors and school officers give personal attention to the carrying out of all the provisions for the proper celebrating of the day. Let the nearly two hundred thousand trees already planted by our school children on previous Arbor Days receive large additions this year. As much as possible arouse the interest of communities in planting trees on Arbor Day along the unshaded highways and about the homes of our people.

This Arbor Day must receive an especial impetus from feeling that the day has been worthy of words of good cheer from Governor Levi P. Morton, the Executive of our great State, and from Hon. J. Sterling Morton, the founder of Arbor Day, a native of our Commonwealth and a member of the cabinet of our National Executive.

Let this eighth year of Arbor Day observance crown all the others in enthusiasm and in widening and deepening influence. Let it speak more clearly of the wisdom of its founders and the full and loyal sympathy of our Commonwealth with every educational agency that teaches us to appreciate nature, gives us greater love of country, honors patriotism, glorifies our flag and ennobles humanity.

Yours respectfully,



State Superintendent

Superintendent's Letter to the Children of the Public Schools

My Dear Boys and Girls of the Empire State:

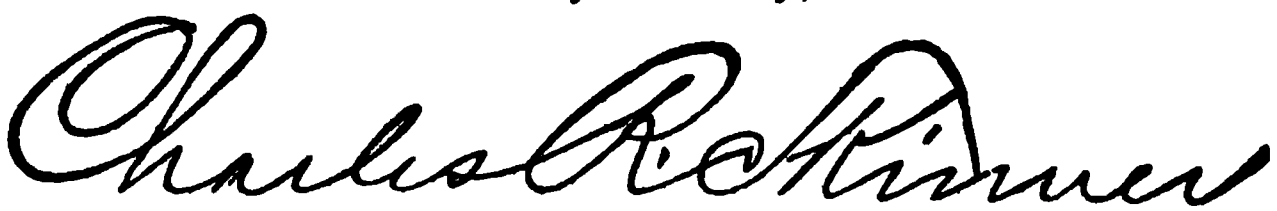
Springtime has come again. Already your eyes have been busy seeking out the blossoming flowers, the upspringing grass and budding vines and trees. Soon all the glories of spring will be around you. The first balmy breezes bring to you the sweet songs of birds, the lazy hum of bees and the nervous notes of insects from valley and from woodland. All these signs must remind you of our great spring festival, Arbor Day. Of course you love Arbor Day, for you love trees and flowers and birds and all things of beauty that God has made. But Arbor Day is not the only day that we love them; we love them every day of the year. Arbor Day is only a day set apart for us to tell of our love for nature and to learn from others of the uses of trees and their beauty and how we need to give those dear friends of ours greater care, and not only try to keep this world of ours as beautiful as we found it, but strive to make it more beautiful. And if we do that, we may find that with beautiful things about us it is more easy to have beautiful thoughts within us.

If you love nature, Arbor Day will mean to you more than the mere planting of trees. It will make you desirous of planting trees in order to make nature more beautiful and somebody more happy in the days to come. Of course you will love especially the trees which you yourselves have planted, for they will always tell you of your usefulness. In the years by and by they will make you think of your school home and bring up pleasant memories of your school life. So our Arbor Day festival will have its richest, most pleasurable lessons in future years, for with the growing trees will come growing interest in them, growing joys through them and growing benefits from them. But all the riches of Arbor Day need not be in the future. It has as well present joys and present lessons and present influences. When you plant a tree and tenderly care for it, you really suggest to others to beautify the school grounds and make them worthy of your tree, and with the school grounds made beautiful comes the need of a school-house that shall be worthy of the grounds, and in such a school-house we shall have a school where teachers and pupils will try to be beautiful in spirit and beautiful in deeds, where all shall *be* good and *do* good, and thus learn the most practical lesson of living. When you plant a tree you are not only making our State more rich and beautiful, but you are giving a gift to the coming years and shedding happiness all about them. Try then to find out all the beauties of nature in tree and shrub, in bird and flower. And as your hearts are turned to the love of nature, be not unmindful of that love and reverence that should look up to nature's God. Love your State and be proud and thankful for all the wealth which nature has bestowed upon it. Love the tree and flower chosen by the children of

our schools and named "State Tree" and "State Flower." Let your thoughts, too, dwell on the riches of our country and the blessings God has given this fairest land of the free. Hold ever dear in your memories the names and deeds of those heroes who fought for it and shed their blood for it.

And now, my dear young friends, although happy in the privilege of thus speaking to you, it has not been my intention to turn your minds from the fuller and more definite lessons that your exercises will teach you. My purpose has been rather to enkindle your spirits to receive the lessons and to touch your hearts to feel them. May the day and the exercises together bring you lessons of right feeling that will lead to right-doing, and may this larger, better life be devoted to your country and to the good of humanity.

Yours very cordially,



State Superintendent

Suggestions for Programs

Full instructions regarding preparation of programs and planting of trees have been given in previous annuals. The following much needed suggestions cannot be too often repeated :

1. Make programs long enough to admit of pleasurable variety; but not too long lest interest in the exercises may flag.
2. Have as many children as possible from the different grades take part in the exercises.
3. Have a place in the program for an essay or talk on the beauty, utility and peculiar habits of the trees to be planted.
4. Interest the patrons of the schools in attending the Arbor Day exercises, and encourage the children to plant trees, vines or shrubs at their homes.
5. Have short talks by some of the school officers or other prominent residents of the district.
6. Give especial attention to the committing to memory by the children of selections on nature and patriotism.
7. Have children learn for that day some one of our national songs.
8. Do not plant trees too near the school building.
9. Have holes for trees made large and partly filled with a good loam several days before Arbor Day.
10. When planting trees, use great care to see that none of the roots are doubled up.
11. When placing soil over the roots, see that it is properly packed.
12. Appoint a committee of pupils to take charge of trees planted and to see that they are watered and cared for during the year.

Specimen Programs

PROGRAM FOR DISTRICT SCHOOLS

MUSIC — "America."

READING OF ARBOR DAY ACT AND SUPERINTENDENT'S LETTER.

QUOTATIONS ON BIRDS, TREES AND FLOWERS.

MUSIC.

ESSAY — "Month of May."

RECITATION — "The Flower of Liberty." — — — — — *Oliver Wendell Holmes*

READING OF LETTERS FROM GOVERNOR MORTON AND SECRETARY MORTON

MUSIC.

SHORT ADDRESS — "What Arbor Day Has Done and Might Do for This District."

MUSIC.

OUT-DOOR EXERCISES:

Dedication and naming of trees to be planted.

Talk on habits and uses of trees planted.

Music.

PROGRAM FOR DISTRICT SCHOOLS

MUSIC.

READING OF ARBOR DAY ACT AND OF GOVERNOR MORTON'S LETTER.

ESSAY — "History of Arbor Day."

DECLAMATION — "The Tree Planter." — — — — — *Johnny Appleseed*

READING OF SECRETARY J. STERLING MORTON'S LETTER.

MUSIC.

READING OF SUPERINTENDENT'S LETTER.

DECLAMATION — "The American Flag." — — — — — *Joseph Rodman Drake*

QUOTATIONS ON NATURE, TREES, FLOWERS, BIRDS.

SHORT ADDRESSES BY TEACHER, TRUSTEES AND PROMINENT PEOPLE.

QUOTATIONS ON PATRIOTISM.

MUSIC — "Arbor Day Song." — — — — — *Vernon Purinton Squires*

EXERCISES AT TREE:

Short addresses on kind of trees to be planted and persons to whom dedicated.

Planting by School.

Music — "Star Spangled Banner."

ACADEMIC PROGRAM

READING OF ARBOR DAY LAW.

MUSIC — "America."

SCRIPTURE SELECTIONS AND PRAYER.

READING OF SUPERINTENDENT'S LETTER.

ORATION — "The Significance of Arbor Day for National Observance."

MUSIC — "Mid the Purple Heather." — — — — — *Frans Abt*

RECITATION — "Rhœcus." — — — — — *James Russell Lowell*

QUOTATIONS ABOUT NATURE:

Nature Inspiring Resolution.

The Peace of Nature.

The Worship of Nature.

The Beauty of Nature.

The Permanence of Nature.

READING — "The Robin." — — — — — *James Russell Lowell*

MUSIC — "Spring Greeting." — — — — — *Robert Schumann*

READING OF LETTERS FROM EMINENT PEOPLE.

ESSAY — "Our Friends of the Garden."

SHORT TALKS:

Leaves, "Ye consciences murmuring faiths under forms."

The Seed Time, "And the nations bless me when they reap."

The Study of Nature, "The earth is not a mere fragment of history, to be studied by antiquaries chiefly, but living poetry."

The American Eagle, "Methinks I see a noble nation, as an eagle, purging and unsealing her long-abused sight at the fountain itself of heavenly radiance."

MUSIC — "Arbor Day Song." — — — — — *Vernon Purinton Squires*

INTERMEDIATE PROGRAM

READING OF ARBOR DAY LAW.

MUSIC.

READING OF SUPERINTENDENT'S LETTER.

QUOTATIONS ON TREES AND BIRDS.

RECITATION — "On Arbor Day." — — — — — *Andrew B. Saxton*

READING OF LETTERS FROM PROMINENT MEN.

MUSIC.

RECITATION — "The Crown of the Years." — — — — — *Ada Stewart Shelton*

QUOTATIONS ON PATRIOTISM.

RECITATION — "The Flower of Liberty." — — — — — *Oliver Wendell Holmes*

EXERCISE — "The Kingship of the Trees." — — — — — *Charles Augustus Schumaker*

ARBOR DAY DRILL — Calisthenic drill with flowers.

MUSIC — "America."

AT THE TREE:

"Arbor Day Song." — — — — — *Vernon Purinton Squires*

PRIMARY PROGRAM

MUSIC — "America."

ESSAY — "Story of Founding of Arbor Day."

SELECTIONS FROM SCRIPTURE.

READING OF SUPERINTENDENT'S LETTER.

RECITATION — "May." — — — — — *Ada Stewart Shelton*

MUSIC.

READING OF LETTERS FROM PROMINENT MEN.

EXERCISE — "Ancient History of the Flowers." — — — — — *Edith M. Thomas*

QUOTATIONS ON FLOWERS AND BIRDS.

CLASS EXERCISE — "Why We Love the American Flag."

MUSIC.

QUOTATIONS ON PATRIOTISM.

RECITATION — "The Flowers." — — — — — *Robert Louis Stevenson*

SHORT TALKS ON:

"Arbor Day."

"State Flower."

"State Tree."

"Our School."

MUSIC.

Selections Appropriate for Arbor Day Programs

I.

ON ARBOR DAY

WRITTEN FOR THIS ANNUAL

What in this balmy day of spring,
When birds the year's first matins sing,
And verdant blades of grass uprear
From out the sod a slender spear,
And Nature in the forest weaves
A tender tapestry of leaves,
Wherein the songsters hide away —
What is our task on Arbor Day?

On Arbor Day we plant the tree,
Whose foliaged wealth of green shall be
A shelter from the summer ray;
Bright in this early morn of May,
The seed we plant, which ere the year
Fades to the yellow leaf and sere,
Shall sprout and spring and bud and bloom,
And dower the garden with perfume.

On Arbor Day, with seed of hope,
We plant the future's fallowed slope.
With thoughts unbounded by the years
We plant in trust and dew with tears
The seed, the vine, the growing tree,
In faith that when our hearts shall be
Dumb as the dust on which we tread,
They shall endure, tho' we be dead.

On Arbor Day serene the ken
Of those who plant for other men —
Who heed not that their hands can know
Scant harvest from the grain they sow;
But, firm of purpose, look to God
To bless the seed beneath the sod,
And in His ordered time to bring
The leaf, the bud, the blossoming.

On Arbor Day to One above
Our grateful hearts we raise in love.
With bended knee and lifted brow
Thus to our Father pray we: "Thou
Supreme of earth and air and sky,
Vouchsafe to man Thy gracious eye,
And bless alike the tree, the May,
And those who plant on Arbor Day."

— ANDREW B. SAXTON.

Secretary Morton's Letter

My Dear Sir

There is no truer
altruism than treeplanting
by the aged. And he
who in the twilight of life
provides for posterity the
shield and shade of
woodlands and the bloom
and fruit of orchards does
God's will.

Faithfully yours

Frederick Morton

February
26th 1896

THE KINGSHIP OF THE TREES

Directions: Arrange pupils in a semi-circle, with first and seventh students at the ends; in delivering their respective lines, first student faces audience; the trees in turn, Maple, Oak, Chestnut, Pine and Elm, step lightly forward; the seventh student turns toward the trees. The trees all step forward and give the last lines in concert.

FIRST STUDENT :

Long since when winds were calm
and growth was old,
Over the trees a silence came ;
And there were musings manifold,
And then a whisper, last a name,
Which tree was worthy fame.

As men contend for name and fame,
so they
Contended there which one should
be
The king and wear the Crown of
May ;
Their voices rose as waves at sea,
And thus they spake each tree.

SECOND STUDENT (representing the Maple):

I am the Maple, beautiful and tall ;
No fruit bear I, but calmly wait
Till perfect leaves and hues of fall
Shall grace my place at Beauty's
gate ;
I'm chosen Tree of State
And beauty's best, so I'll be king !

THIRD STUDENT (representing the Oak):

I brave the storm, for I am the hardy
Oak,
And toss my branches to the sky ;
I scorn the blinded lightning's
stroke,
And laugh when rolling clouds are
by ;
A type of strength am I,
And strength is best, so I'll be king !

FOURTH STUDENT (representing the Chestnut):

I am the Chestnut shady, home of
squirrels
And happy birds; the livelong day
Gay, laughing boys and merry girls
Within my shade are fast at play,
With fears and cares away.
And joy is best, so I'll be king !

FIFTH STUDENT (representing the Pine:)

I grow on mountain heights, my
spirit free,
The lofty, silent, prayerful Pine ;
The winds and snows find rest with
me,
And men seek out this calm of
mine
To dream on things divine.
And peace is best, so I'll be king !

SIXTH STUDENT (representing the Elm):

I am the Elm and love to dwell
alone :
The clinging vine is wed to me,
And oft our hearts when peaceful
grown
Commune with earth and sky and
sea,
To learn their mystery.
And wisdom's best, so I'll be king !

SEVENTH STUDENT:

Then Nature gently rose and queenly
spake,
Her voice as soft as summer air :
"My children dear, advice now
take,
And learn of me the world of care,
That only freedom's rare.

"Seek no kingship ; there is no first
nor best ;

The best is being best you can ;
Live more of life and never rest ;
Each has a work that God began,
And all are in his plan."

THE TREES (in concert):

We'll seek no kingship ; there is no
first nor best ;
The best is being best we can ;
Then more of life and never rest,
We have a work that God began,
And all are in his plan.

— CHARLES AUGUSTUS SCHUMAKER.

THE FLOWERS

All the names I know from nurse :
 Gardener's Garters, Shepherd's Purse,
 Bachelor's Buttons, Lady's Smock,
 And the Lady Hollyhock.

Fairy places, fairy things,
 Fairy woods where the wild bee wings,
 Tiny trees for tiny dames —
 These must all be fairy names !

Tiny woods below whose boughs
 Shady fairies weave a house ;
 Tiny tree-tops, rose or thyme,
 Where the braver fairies climb !

Fair are grown-up people's trees,
 But the fairest woods are these ;
 Where, if I were not so tall,
 I should live for good and all.

—ROBERT LOUIS STEVENSON.

OUR THREE FAVORITES

The oak is a strong and stalwart tree,
 And it lifts its branches up
 And catches the dew right gallantly
 In many a dainty cup.
 And the world is brighter and better
 made,
 Because of the woodman's stroke,
 Descending in sun or falling in shade,
 On the sturdy form of the oak.

The elm is a kindly, goodly tree,
 With its branches bending low ;
 The heart is glad when its form we see,
 As we list to the river's flow.
 Ay ! the heart is glad and the pulses
 bound,
 And joy illumines the face
 Whenever a goodly elm is found,
 Because of its beauty and grace.

The maple is supple, and lithe, and strong,
 And claimeth our love anew,
 When days are listless, and quiet, and long,
 And the world is fair to view.
 And later — as beauties and graces unfold —
 A monarch right royally drest,
 With streamers aflame and pennons of gold,
 It seemeth of all the best.

OUR MOTHERS THREE

AN ARBOR DAY SONG. WRITTEN FOR THIS ANNUAL

Tune: *Battle Hymn of the Republic.*

Come now and raise a gladsome song to Mother Nature dear ;
 Again the flowers laugh in the fields, again the birds sing clear ;
 And we who love God's bright, fair world should let that love appear
 On this glad Arbor Day.

CHORUS.

Mother Nature, hear our singing,
 Take the praises we are bringing ;
 May they swell, forever ringing,
 As on this Arbor Day.

And let us too join hearts in praise of our dear native land,
 Our Mother Country she, to whom we all pledge heart and hand,
 A peerless queen she truly is ; so may she ever stand,
 As on this Arbor Day.

CHORUS.

Mother Country, hear our singing;
Take the praises we are bringing;
May they swell, forever ringing,
As on this Arbor Day.

And to our Alma Mater, our dear Mother School as well,
We sing to show our loyalty; we would her virtues tell;
She teaches us the truth of life; we pledge to heed them well,
On this glad Arbor Day.

CHORUS.

Alma Mater, hear our singing;
Take the praises we are bringing;
May they swell, forever ringing,
As on this Arbor Day.

Our school we love, our happy land, and Nature's beauty rare,
Three mothers they, and in their weal we each have some true share,
So plant we trees, salute the flag, and faith and fealty swear,
On this glad Arbor Day.

CHORUS.

Mother Nature, hear our singing;
Mother Country, love we're bringing;
Mother School, thy praise is ringing,
On this glad Arbor Day.

— VERNON PURINTON SQUIRES.

THE CROWN OF YEARS

So old, so old, was the Apple-tree that leaned o'er the orchard wall;
With its limbs so crooked and bowed with age
That it seemed at least to have reached the stage
When hope is beyond recall.

Her younger sisters, in goodly row, stood vigorous, straight and fair;
And the stately elms on the broad highway
Bent their branches low with a friendly sway
To pity the old tree there.

When skies grew blue, and the earth grew glad, the crown of the year, our May,
Came with gracious steps to the orchard bare,
And each young tree seemed in fragrant air
A beautiful bride's bouquet.

A crown of beauty the gnarled old tree now wears in her chastened pride,
For her bloom is pink as the dawn of day,
Or the pearly shells with which mermaids play,
And leave on the ebbing tide.

The dew-drops kissed her, the night-wind paused and whispered from bough to
bough;

" 'Tis the gift of youth to be straight and fair,
But the dower of age is a beauty rare,

You're the Queen of the Orchard now!" — ADA STEWART SHELTON.

THE FLOWER OF LIBERTY

What flower is this that greets the
morn,
Its hues from heaven so freshly born?
With burning star and flaming band
it kindles all the sunset land:
O, tell us what its name may be!
Is this the Flower of Liberty?

It is the banner of the free,
The starry Flower of Liberty!

In savage Nature's fair abode,
Its tender seed our fathers sowed;
The storm-winds rocked its swelling
bud,
Its opening leaves were streaked with
blood,—

Till, lo, earth's tyrants shook to see
The full-blown Flower of Liberty!

Then hail the banner of the free,
The starry Flower of Liberty!

Behold the streaming rays unite,
One mingling flood of braided light,—
The red that fires the Southern rose,
With spotless white from Northern
snows,

And, spangled o'er its azure, see
The sister Stars of Liberty!

Then hail the banner of the free,
The starry Flower of Liberty!

The blades of heroes fence it round;
•Where'er it springs is holy ground;
From tower and dome its glories
spread;

It waves where lonely sentries
tread;

It makes the land as ocean free,
And plants an empire on the sea!

Then hail the banner of the free,
The starry Flower of Liberty!

Thy sacred leaves, fair Freedom's flower,
Shall ever float on dome and tower,
To all their heavenly colors true,
In blackening frost or crimson dew;
And God love us as we love thee,
Thrice holy Flower of Liberty!

Then hail the banner of the free,
The starry Flower of Liberty!

— OLIVER WENDELL HOLMES

MAY

Oh a dear little maiden is dainty Miss May,
And she has such a pleasant and sweet winning way,
That we long to be out and be with her all day.

She comes over the meadows and into the town,
All embroidered with lilacs her beautiful gown,
And her bonnet of buttercups way to the crown.

When she smiles all the clouds disappear from the skies,
For there's seldom a tear to be seen in those eyes,
Whose color to match the forget-me-not tries.

And to show how they love her, their own darling May,
'Tis with blushes as pink as the dawn of day,
That each apple-tree turns to a blooming bouquet.

— ADA STEWART SHELTON.

THE TREE PLANTER

I love to plant a little seed
Whose fruit I never see;
Some hungry stranger it will feed
When it becomes a tree.

So I can never lonely be,
Although I am alone,
I think the future apple-tree
Which helps the man unknown.

I love to sing a little song
Whose words attune the day,
And round me see the children throng
When I begin to play.

I sing my heart into the air
And plant my way with seed;
The song sends music everywhere,
The tree will tell my deed.

— From JOHNNY APPLESEED'S RHYMES.

O LAND OF LANDS

BY PRINCIPAL JOHN E. SHERWOOD OF ALBANY

Music: "*Soldiers' Farewell*"

O Land of Lands, the fairest!
With beauty crowned, the rarest!
To thee, in fullest measure,
We give our heart's best treasure.
Dear land, to thee our love we bring,
Thy praise, with joyful voices sing.

Here Freedom rears her altars,
And Liberty ne'er falters,
The right, the true pursuing,
'Tis God's own work she's doing.

Here hearths and homes are sacred,
Untouched by tyrant's hatred,
While Peace and Calm unending,
Their choicest gifts are sending.

May blessings past, unbounded,
Which many a year has rounded,
Give place to those still greater,
Sent by a kind Creator.

QUOTATIONS ON NATURE

Nature repairs her ravages,—
Repairs them with sunshine and human labor. —GEORGE ELIOT.

Nature is the master of talent;
Genius is the master of nature. —JOHN G. HOLLAND.

Nature is just to all mankind,
And repays them for their industry. —CHARLES MONTESQUIEU.

The truths of nature are one eternal change, one infinite variety. —JOHN RUSKIN.

Nature, at all events, humanly speaking, is manifestly very fond of color, for she has made nothing without it; her skies are blue; her fields, green; her waters vary with her sky; her animals, vegetables, minerals, all are colored; she paints a great many of them in apparently superfluous hues as if to show the dullest eye how she loves color. —LEIGH HUNT.

Nature, in her most dazzling aspects or tremendous parts, is but the background and theatre of the tragedy of man. —JOHN MORLEY.

There is a majesty and mystery in nature, take her as you will. The essence of poetry comes breathing to a mind that feels from every province of her empire. —THOMAS CARLYLE.

Nature seems to have been created to inspire feeling. —THOMAS STARR KING.

Nature is a volume of which God is the author. —MOSES HARVEY.

Nature is thought made visible. —HEINRICH HEINE.

Laws of nature are God's thoughts thinking themselves out in the orbits and the tides. —CHARLES H. PARKHURST.

The world we live in is a fairy-land of exquisite beauty; our very existence is a miracle in itself, and yet few of us enjoy as we might, and none of us as yet appreciate fully, the beauties and wonders which surround us. —JOHN LUBBOCK.

Music Appropriate for Arbor Day Exercises

PATRIOTIC SONGS

Keller's American Hymn.	Flag of the Free.
Hail, Columbia.	Star Spangled Banner.
Battle Hymn of the Republic.	Columbia, Gem of the Ocean.
Columbia, God Preserve thee Free.	America.

MUSIC FOR ADVANCED PUPILS

Spring Waltz.	Bluebird.
Old Mountain Tree.	The Bird Song.
Brave Old Oak.	Come to the Old Oak Tree.
Summer Days are Coming.	Swinging 'neath the Old Apple Tree.
The Cuckoo.	Robin Redbreast.
Beautiful Springtime.	Mountain Maid's Invitation.

MUSIC FOR LITTLE FOLKS

Birds' Ball.	Meadow Talk.
Birds Are in the Woodland.	The Wren and the Hen.
I Love the Merry Sunshine.	Dandelions.
Blossom Time.	The Queen o' May.
Little Birdie in the Tree.	The Sweet, Red Rose.
Little Miss Clover.	If Bluebirds Bloomed.
A Summer Song.	Little Maid Margery.
Billy Buttercup.	O, How I Love the Summer.
Don't You See Me, Coming, Coming?	

THE AMERICAN FLAG

<p>When Freedom from her mountain height Unfurled her standard to the air, She tore the azure robe of night, And set the stars of glory there. She mingled with its gorgeous dyes The milky baldrick of the skies, And striped its pure, celestial white, With streakings of the morning light.</p>	<p>Flag of the free heart's hope and home By angel hands to valor given Thy stars have lit the welkin dome, And all thy hues were born in heaven. Forever float that standard sheet! Where breathes the foe but falls be- fore us, With Freedom's soil beneath our feet, And Freedom's banner streaming o'er us? —JOSEPH RODMAN DRAKE.</p>
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EXERCISE ON THE AMERICAN FLAG

Have school-room decorated with flags, bunting, etc. Have pictures of George Washington, Abraham Lincoln and other patriotic pictures. Have, if possible, a small flag for each child to wear.

I. Teacher tells story of our flag, covering the following topics :

1. Origin of the Stars and Stripes.

Washington's Coat-of-Arms.

First flag made by Mrs. Betsy Ross.

Meaning of the parts of the flag :

Meaning of colors :

Red, emblem of war, defiance, courage, valor.

White, emblem of purity, innocence, peace.

Blue, emblem of truth, faith.

Meaning of stripes :

Thirteen stripes, union of thirteen original States.

Meaning of stars :

Each star represents a State (44 now, 45 in the new flags
to be first used July 4, 1896).

2. When and where the flag is used:

Public schools and public buildings.

United States army and navy.

National holidays.

II. Children tell why we love our flag.

Among the answers the following will be obtained:

It is the flag of our country.

It is the flag of freedom.

It makes us think of Washington.

It makes us think of Lincoln.

Our fathers fought for it.

It makes us think of our country's heroes.

III. Teacher sums up, telling what the flag means to us.

APPENDIX

EXHIBIT No. 1

VIEWS OF SCHOOL BUILDINGS

IN preparing this exhibit this year the aim has been, not to collect a few show pieces of architecture, but to present material which may be of use to Boards of Education in designing and estimating on plans for new school buildings. For this purpose there has been included in the exhibit buildings costing from \$900 to \$120,000, together with architects' plans for the most typical buildings, and the cost and date of erection of each building.

We are indebted to the *Engineering Record* of New York city for the interesting description and sketches of the ventilating system of the James Street school of Auburn and recommend its perusal to school boards.

The demand for increased school facilities owing to the enforcement of the Compulsory Education Law has forced upon the attention of school authorities the necessity of providing for their communities school buildings not only adequate in seating capacity, but equipped with the latest improvements in heating, lighting and ventilating.

To school boards who have this problem to meet we expect this exhibit to be a distinct help. It is our purpose to re-publish this exhibit in pamphlet form, together with some of the best plates in previous reports, as illustrative of the latest school architecture and as an accompaniment to the "Designs for School Houses," which met with such favor several years ago. Both pamphlets may be had free on application by Boards of Education.

Ventilation of an Auburn, N. Y., School.

[Reprinted by permission from "The Engineering Record." Designs from the same paper.]

The James street school, in Auburn, N. Y., was constructed from plans made by Mr. J. A. Schweinfurth, architect, of Boston, Mass., and the plans and specifications for the heating apparatus were drawn up by Mr. Edward Joy, of Syracuse, N. Y., and the work afterward done by him. The school building is of unusual form, its location being at the intersection of two streets forming an oblique angle. The school is a 14-room building and contains about 112,000 cubic feet of air space in the rooms and 65,000 feet in the halls and cloak-rooms. The average size of each class-room is 24x35 feet, with a 12-foot ceiling, and a seating capacity of 50 pupils to each room. Figs. 1, 2, and 3 show the first, second and third floors respectively. All class-rooms are heated by indirect radiation only, while the halls and cloak-rooms are heated by direct radiation.

Heat is supplied by steam from an 80 horse-power return tubular boiler, furnished by W. C. Conklin, of Auburn. The boiler is fitted with Woodcock's patent shaking grates and such automatic devices as are necessary for the complete controlling of the steam pressure. The steam is supplied to the radiators in the manner shown by Fig. 1, the basement plan. The stacks are so connected by a system of valves that one-fourth, one-half and three-fourths or all of the radiation can be turned on or off to meet the requirements of the weather. The air is led to the stacks by flues running from near-by window openings, the flues containing screens on the outer end. The stacks are incased on all sides with brick walls four inches thick laid in cement mortar and extending from the basement floor to the ceiling. The top is sheathed with matched lumber and then lined with asbestos paper and IX bright tin. The stacks are so incased that the fresh air entering the bottom of the casing finds an exit only through and between the radiators, thus being brought in immediate contact with and impinging upon the heated surface of the stacks. Ample space is allowed above radiators and inside the

casing for the air to mingle after passing over the radiators before escaping into the hot-air flues. Brick ducts deliver the air to a register about six feet above the floor. In determining the area of the warm-air flues a velocity of five feet per second was agreed upon. Each of the rooms is provided with a 24x30-inch vent guard located close to the floor, and from each a flue leads to the attic space to one of two systems of horizontal ducts, each of which is connected to a main ventilating shaft leading out through the roof. The ducts are shown by dotted lines on Fig. 3. Each main vent

shaft contains a steam coil made up of 125 feet of 1½-inch pipe. Underneath the coils a galvanized iron tray with drip is placed to receive snow or rain that might enter the shaft. There is also placed in the main vent shafts a turn damper operated from the cellar, to be closed when school is not in session and thus retain the heat in the building.

There is placed in the cold-air stack for each room a mixing valve, as shown by Fig. 4, operated with a cord and tassels by the teacher, so that cold air may be thrown either under or over the stack, thus securing any required temperature of air without in any way diminishing the quantity of the supply. Each of the vent flues contains a switch damper so that the air can rise up and through the ventilating flues to the open air, or down through the cold-air box in the basement and re-entering the underside of the

stacks on the same general principle as that of the cold-air supply, and thus maintain an internal circulation; the object in this being to keep the flues thoroughly warm over night, so that they are ready to respond at a moment's notice when the dampers are opened for school hours and give a quick and rapid circulation from the start. Each of the heating and ventilating flues in the rooms has wire guards, the full size of the flue, independent of the fretwork of the guard. These guards have a $1\frac{1}{4}$ -inch mesh.

A Cottage heater, furnished by the H. B. Smith Company, Westfield, Mass., is placed in the basement, to be used when the main boiler is out of service. This boiler supplies heat to each of the main ventilating shafts in the attic and the two ventilating flues leading from the lavatories at the extreme ends of the building. The lavatory shafts contain about 30 feet of $1\frac{1}{4}$ -inch pipe.

The total radiation of the building, independent of the coils and heating flues, is 4,700 square feet Gold's pin indirect radiation, and 700 square feet of direct radiation, making a total of 5,400 square feet of radiation, exclusive of the mains and returns. One square foot of indirect radiation was installed for every 24 feet of space in the room.

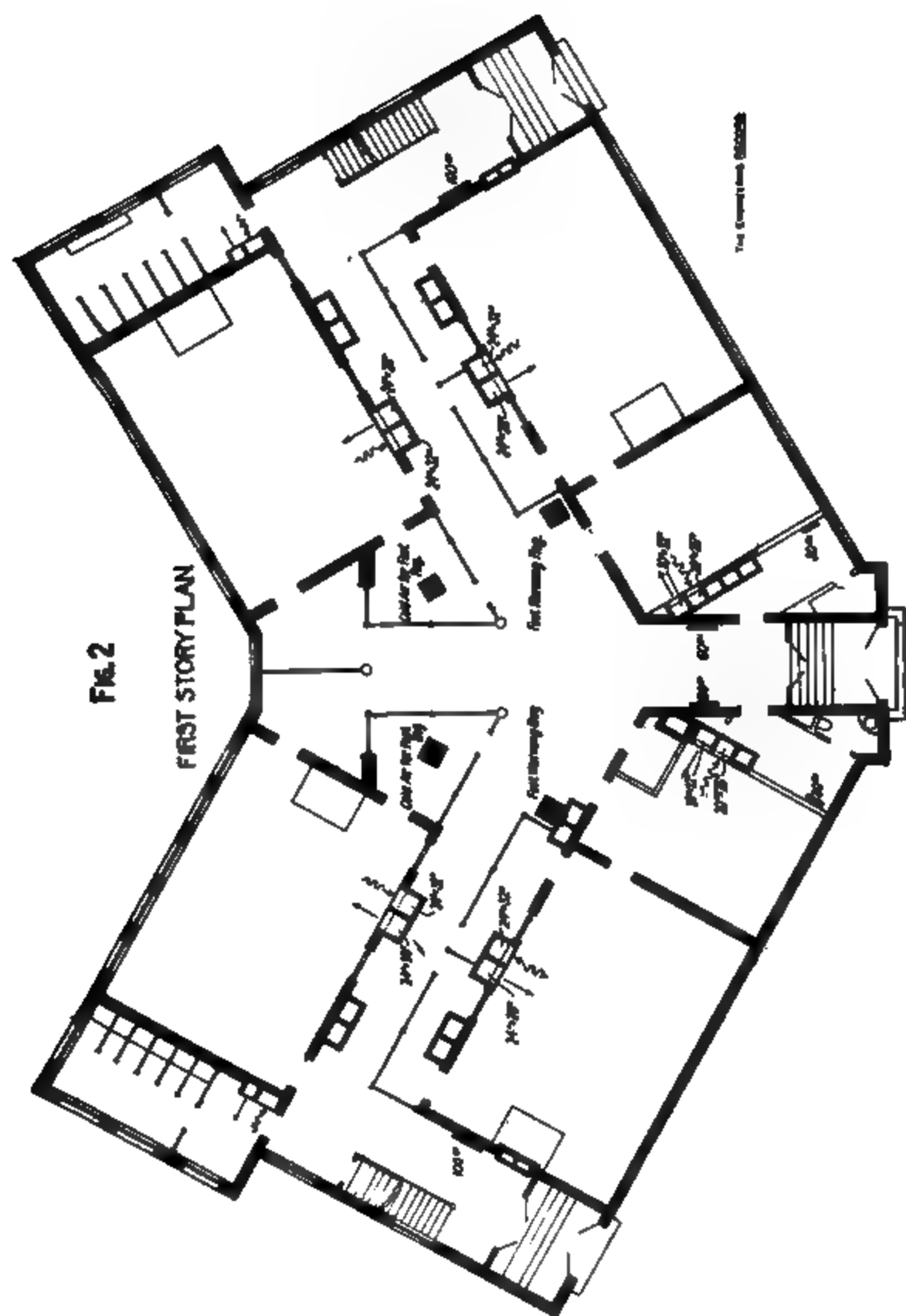
The guarantee was made that the steam would circulate through all radiators under one pound steam pressure at the boilers; that the plant should be noiseless in operation at all pressures; that the rooms should be heated to 70 degrees and the halls to be 65 degrees in the coldest weather; that the inflow of air shall be 30 cubic feet of air per minute for each pupil, and that it be measured by an anemometer, and that a gunpowder test be applied to see that the air is diffused equally to all parts of the room without showing any perceptible difference of smoke line.

Mr. Joy informs us that the gunpowder test was applied and the entire interior enveloped in black smoke in a most uniform manner, and that in seven minutes from the time of ignition the smoke was completely exhausted from the room and the air was as clear as before the test. Mr. Joy further stated that the apparatus is showing itself to be ample from every standpoint, and had given excellent satisfaction with three-fourths of the radiation on when the mercury was seven degrees below zero outside.



FIG. 2

FIRST STORY PLAN

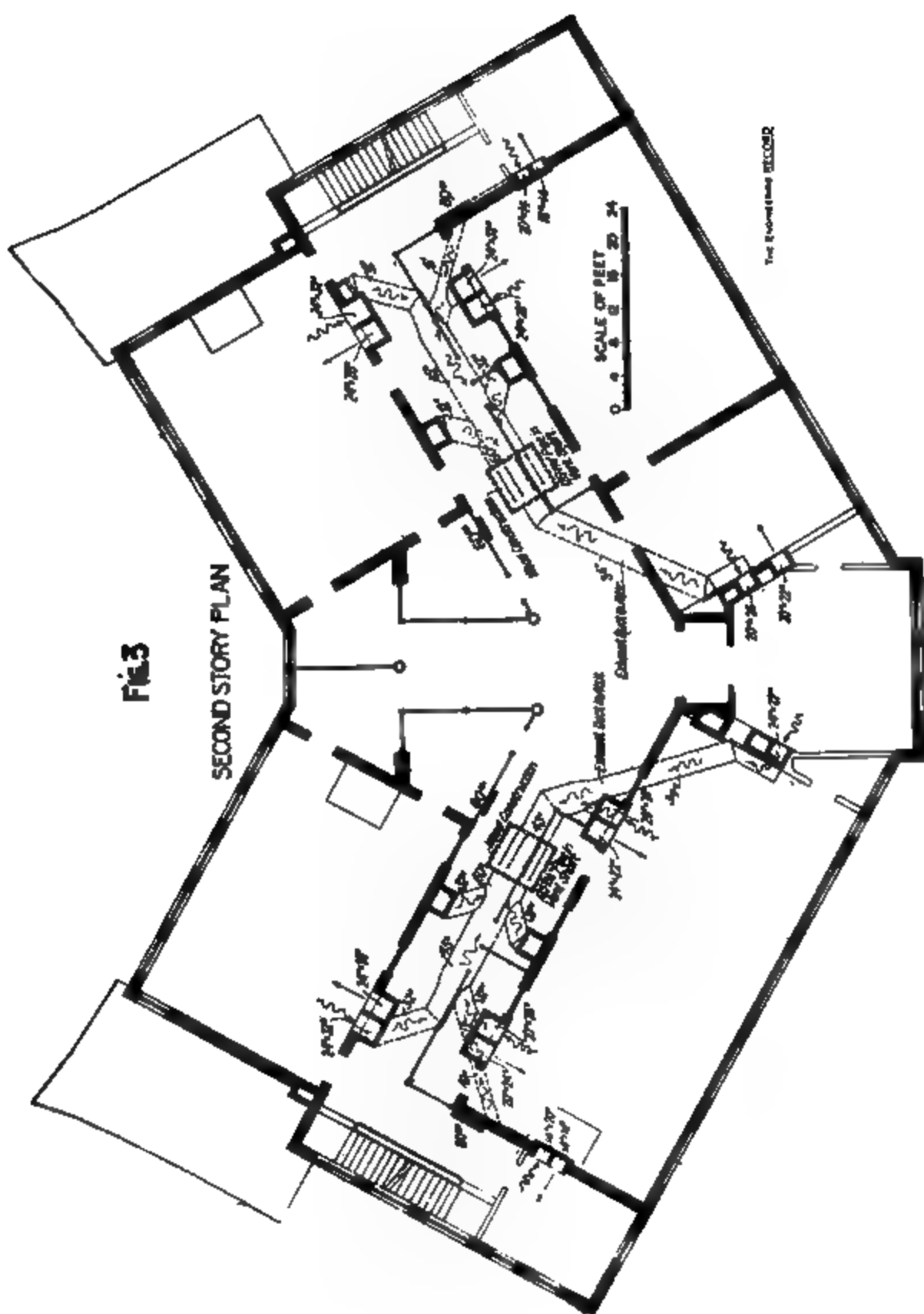


The University of Michigan



Fig. 3

SECOND STORY PLAN



True Scale (1/4\"/>





VENTILATION OF AN AUBURN, N. Y., SCHOOL

MR J A. SCHWEINFURTH, BOSTON, ARCHITECT. MR. EDWARD JOY, SYRACUSE, N Y., ENGINEER AND CONTRACTOR

FIG. 2

FIRST STORY PLAN

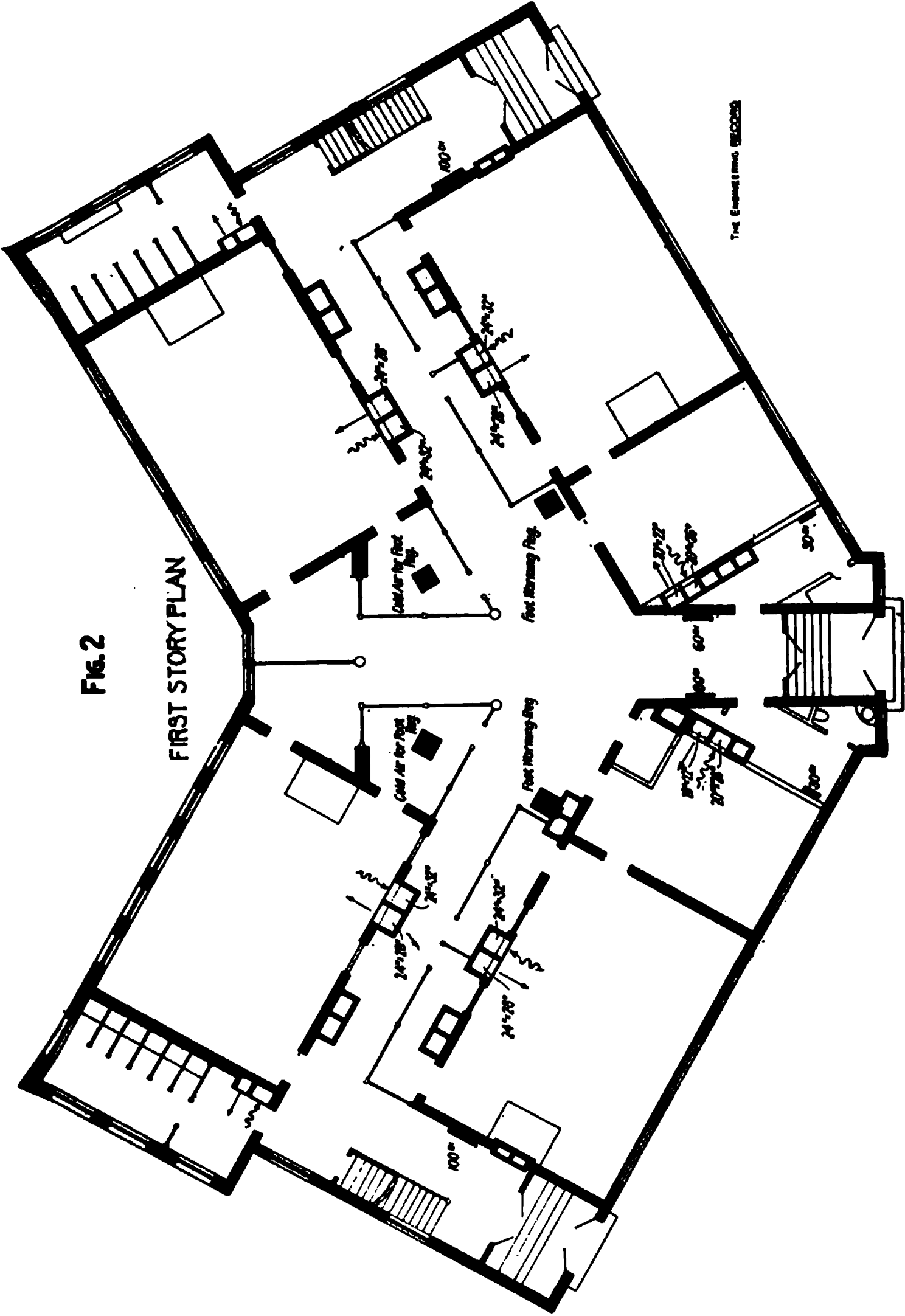


Fig. 3

SECOND STORY PLAN





AUBURN—JAMES ST. SCHOOL. Erected 1888. Cost, \$87,000.

BROADALBIN UNION SCHOOL, DISTRICT No. 8. Erected 1895. Cost. \$4,500.

UNI
25

BUFFALO--MASTEN PARK HIGH SCHOOL. Erected 1897 Cost, \$192,000.

BUFFALO-SCHOOL No. 23. Erected 1894. Cost, \$32,000.

BUFFALO—SCHOOL No. 44. Erected 1895. Cost, \$51,000.

BUFFALO—SCHOOL No. 50. Erected 1895. Cost, \$30,000.



BUFFALO—SCHOOL No. 51. Erected 1895. Cost, \$40,000.

BUFFALO—SCHOOL No. 53. Erected 1895. Cost, \$40,000.

BUFFALO—SCHOOL No. 54. Erected 1895. Cost, \$41,000.



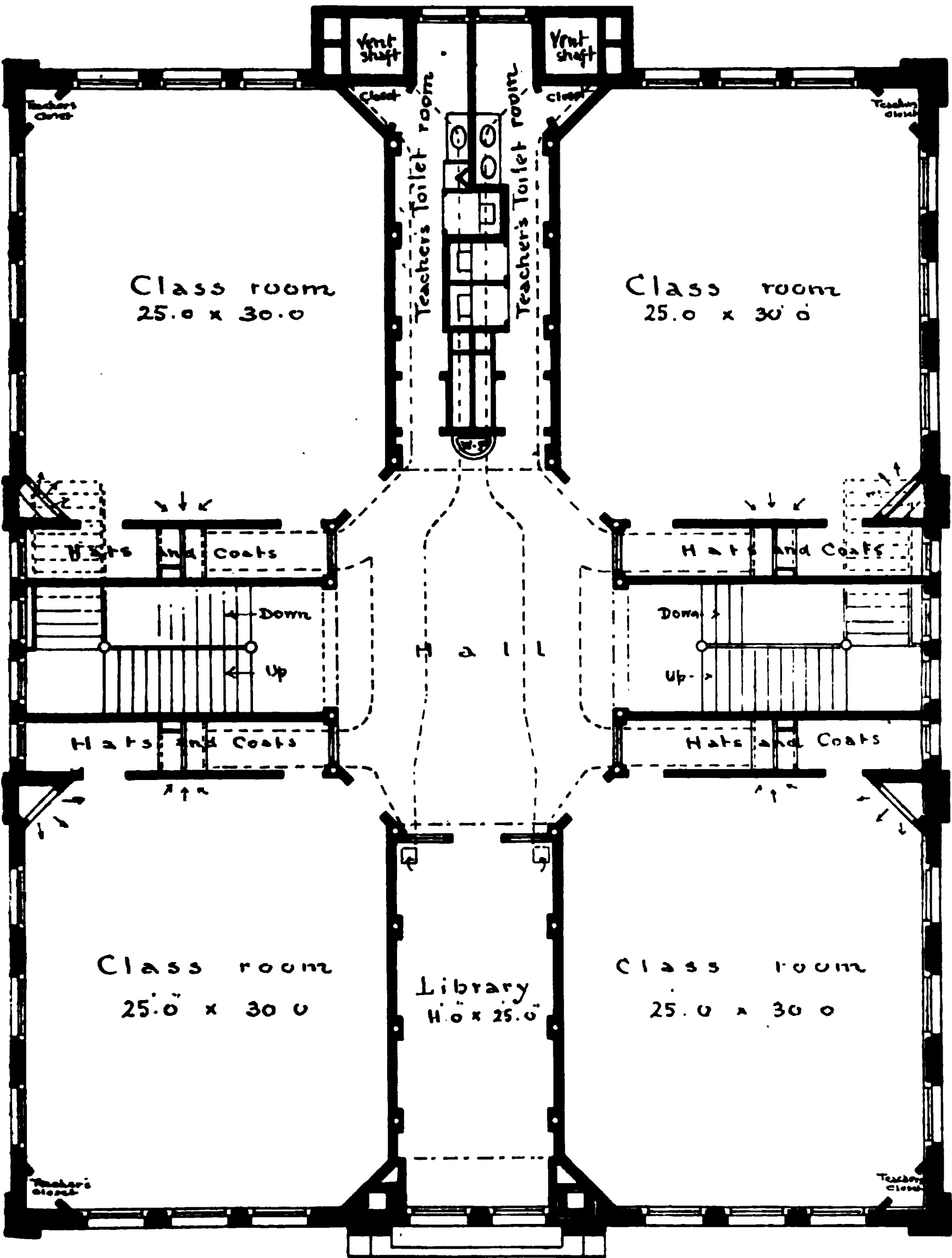
BUFFALO-SCHOOL No. 55. Erected 1895. Cost, \$42,000.

BUFFALO-SCHOOL No. 56. Erected 1896. Cost, \$46,000.



CASTLETON, S. I - DISTRICT No 4 (TOMPKINSVILLE.) Erected 1896. Cost, \$28,500.





Second Floor Plan
Castleton



Third Floor Plan

Castleton

E. A. Sargent
Architect
18 Broadway
New

CATSKILL—GRAMMAR SCHOOL No. 2. Erected 1892. Cost, \$18,000.



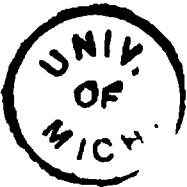


CHURCHVILLE UNION SCHOOL. Erected 1895. Cost, \$12,600.







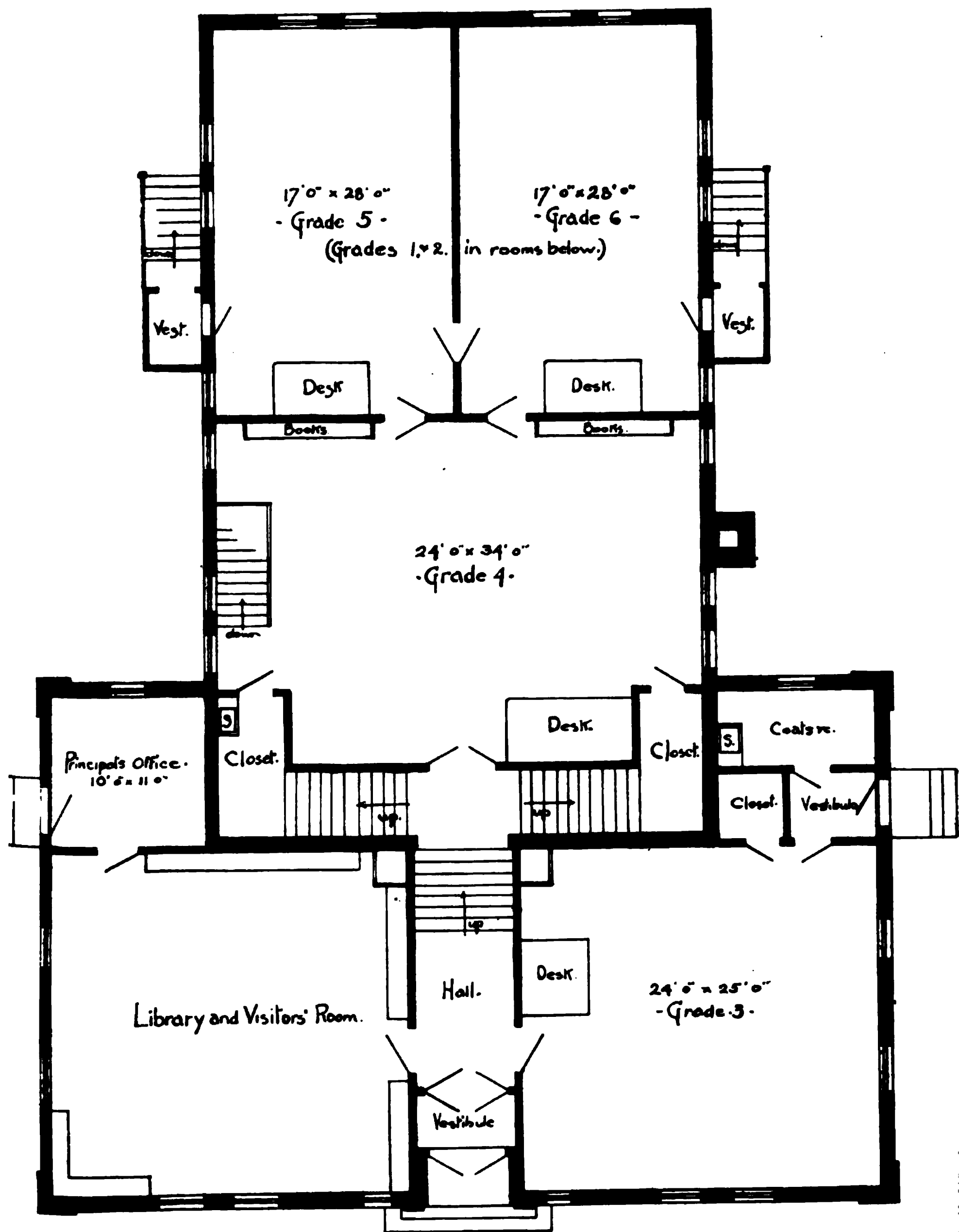




CORNWALL UNION SCHOOL. Erected 1896. Cost, \$8,000.



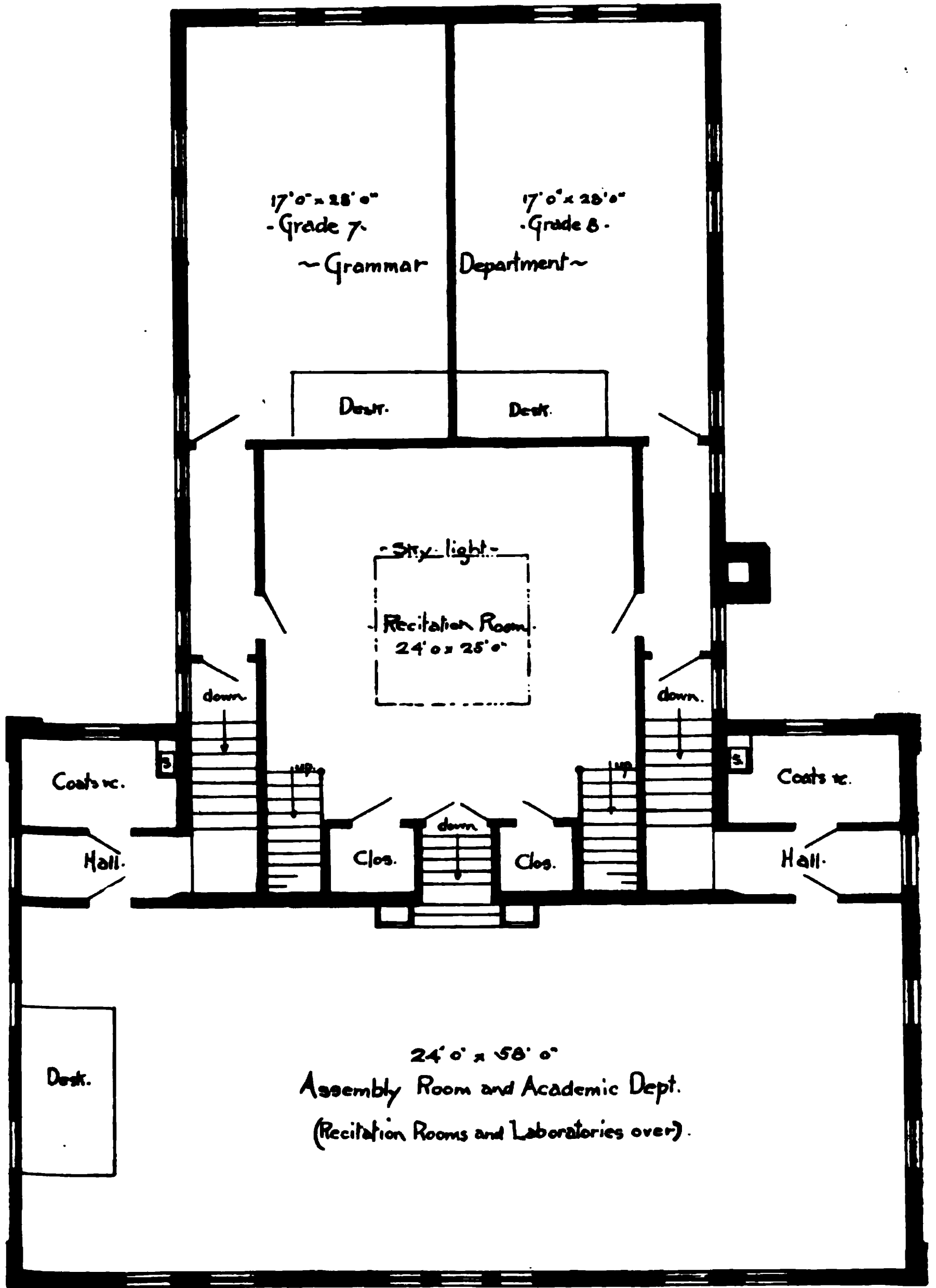
CORNWALL-ON-HUDSON—UNION FREE SCHOOL. Erected { 1872 } Cost, { \$12,000.
{ 1888. } { \$7,800.



First Story Plan.

Scale $\frac{1}{8}" = \text{One foot.}$

Cornwall-on-Hudson Union Free School and Academy.



Second Story Plan
Scale $\frac{1}{8}$ " = One foot.



Cornwall-on-Hudson Union Free School and Academy

DOBBS FERRY UNION SCHOOL. Erected 1893. Cost, \$28,000.







DUNDEE GRADED SCHOOL. Erected 1889. Cost, \$5,000.



DUNKIRK HIGH SCHOOL. Erected 1896. Cost \$51,000.

DUNKIRK HIGH SCHOOL. Hallway.

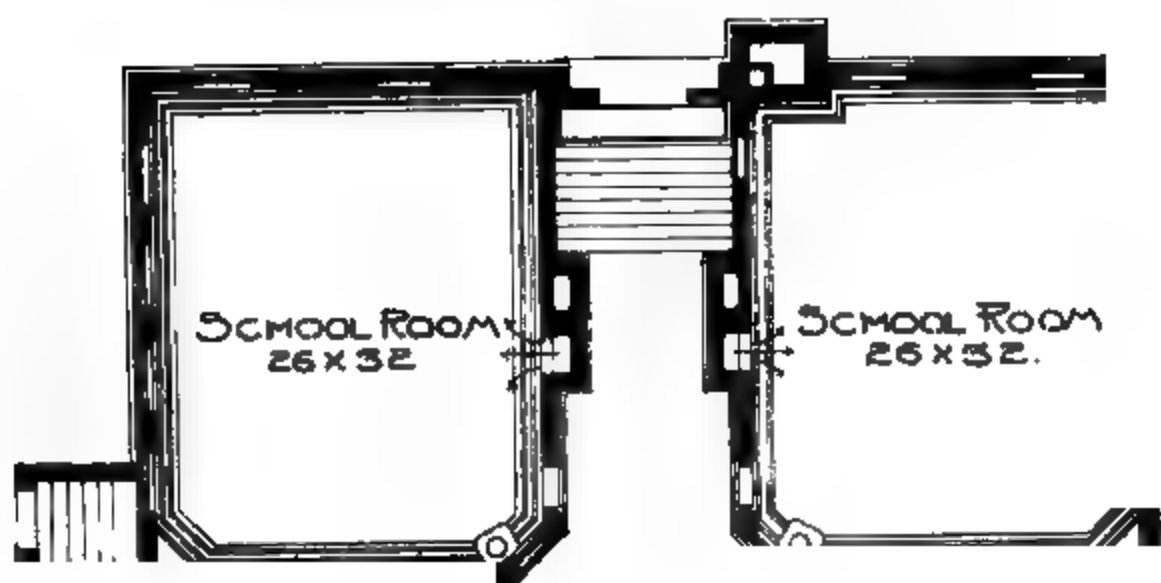


DUNKIN HIGH SCHOOL. Staircase, 2d Floor.

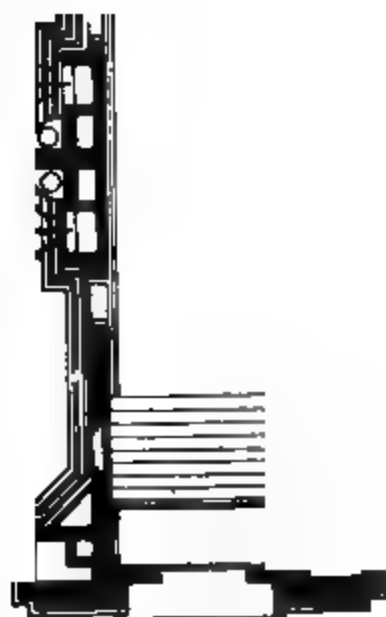


ELMIRA—SCHOOL No. 9. Erected 1896. Cost, \$23,500.





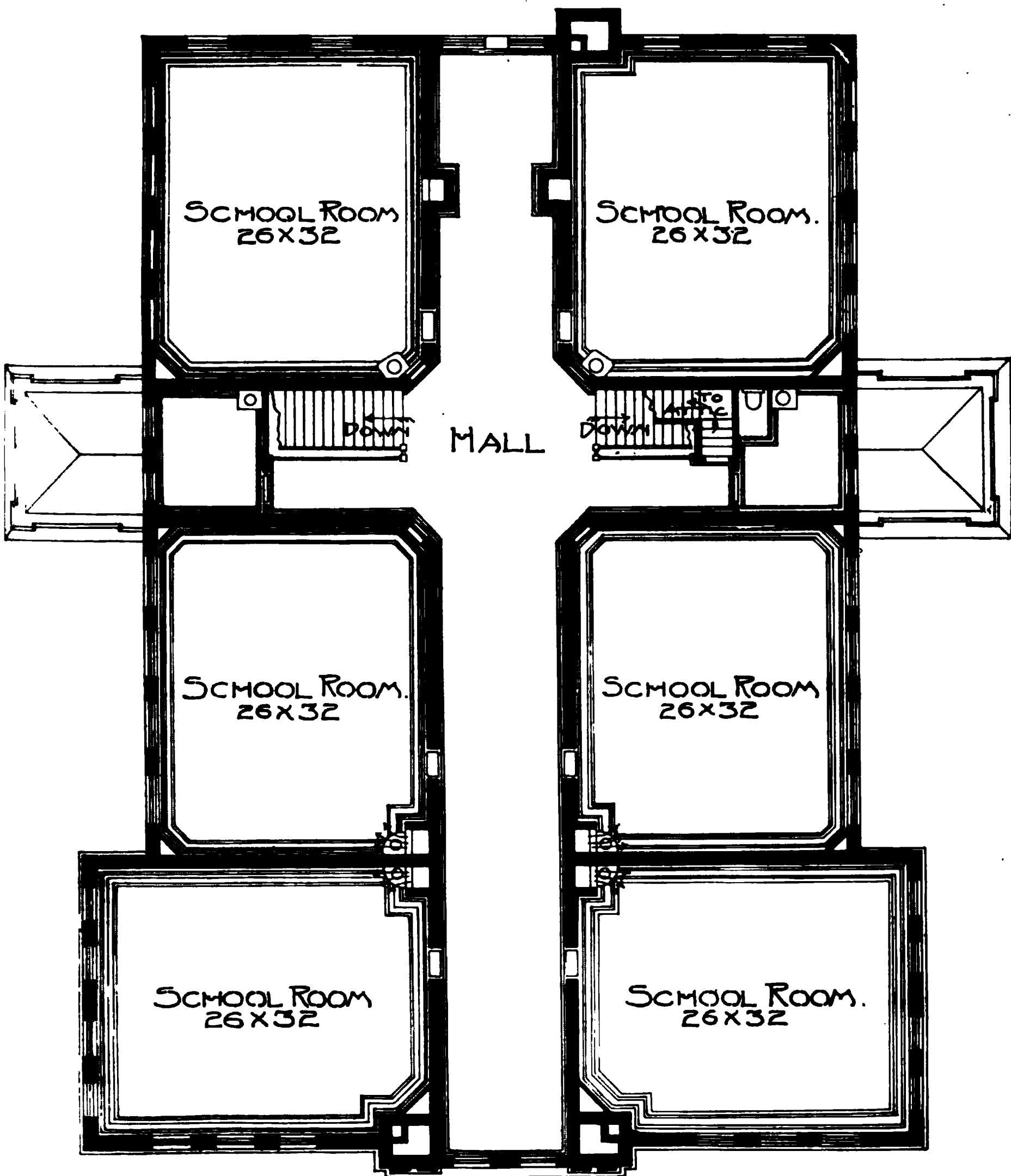
HALL



FIRST FLOOR PLAN.
SCHOOL BUILDING No 9.
ELMIRA, N.Y.

J.M. CONSIDINE-ARCHITECT.





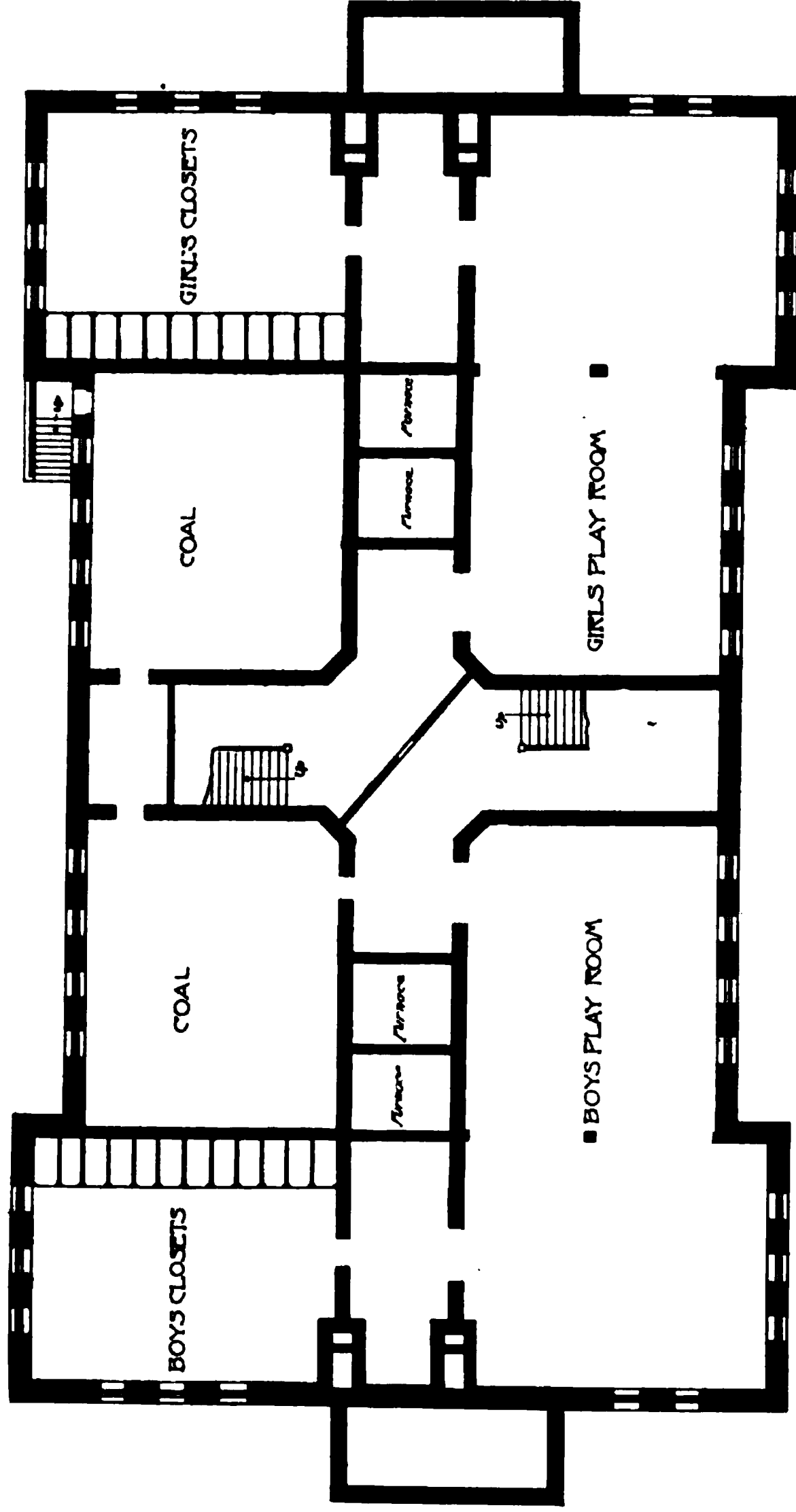
SECOND FLOOR PLAN
 SCHOOL BUILDING No 9
 ELMIRA, N.Y.

J.M. CONSIDINE-ARCHITECT.





ELMIRA--MADISON AVE. SCHOOL. Erected 1891. Cost, \$28,000.

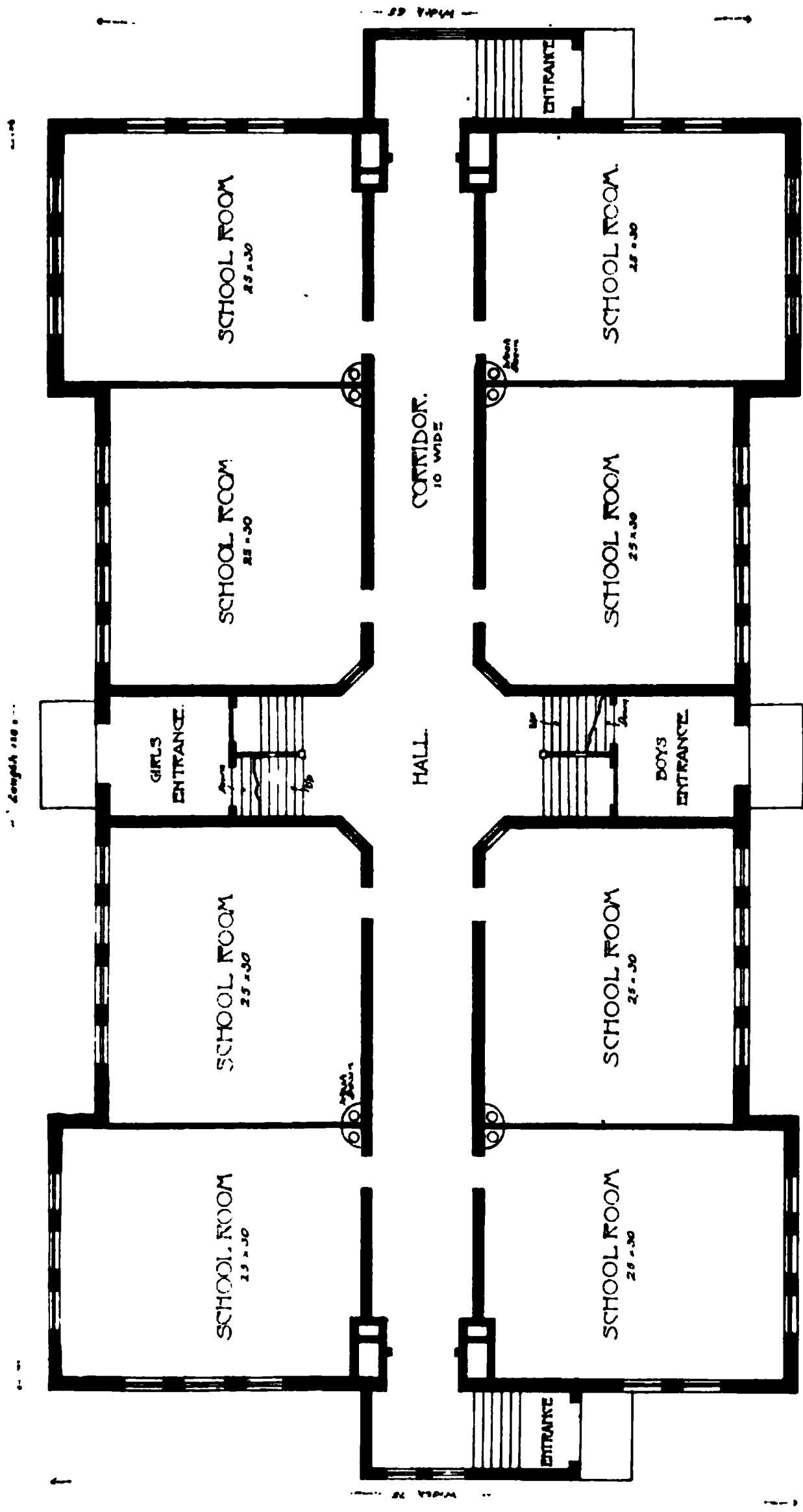


BASEMENT PLAN
1/8" = 1'-0"

MADISON AVE. SCHOOL
Elmira, N.Y.

Pierce & Dickford Architects
New York City

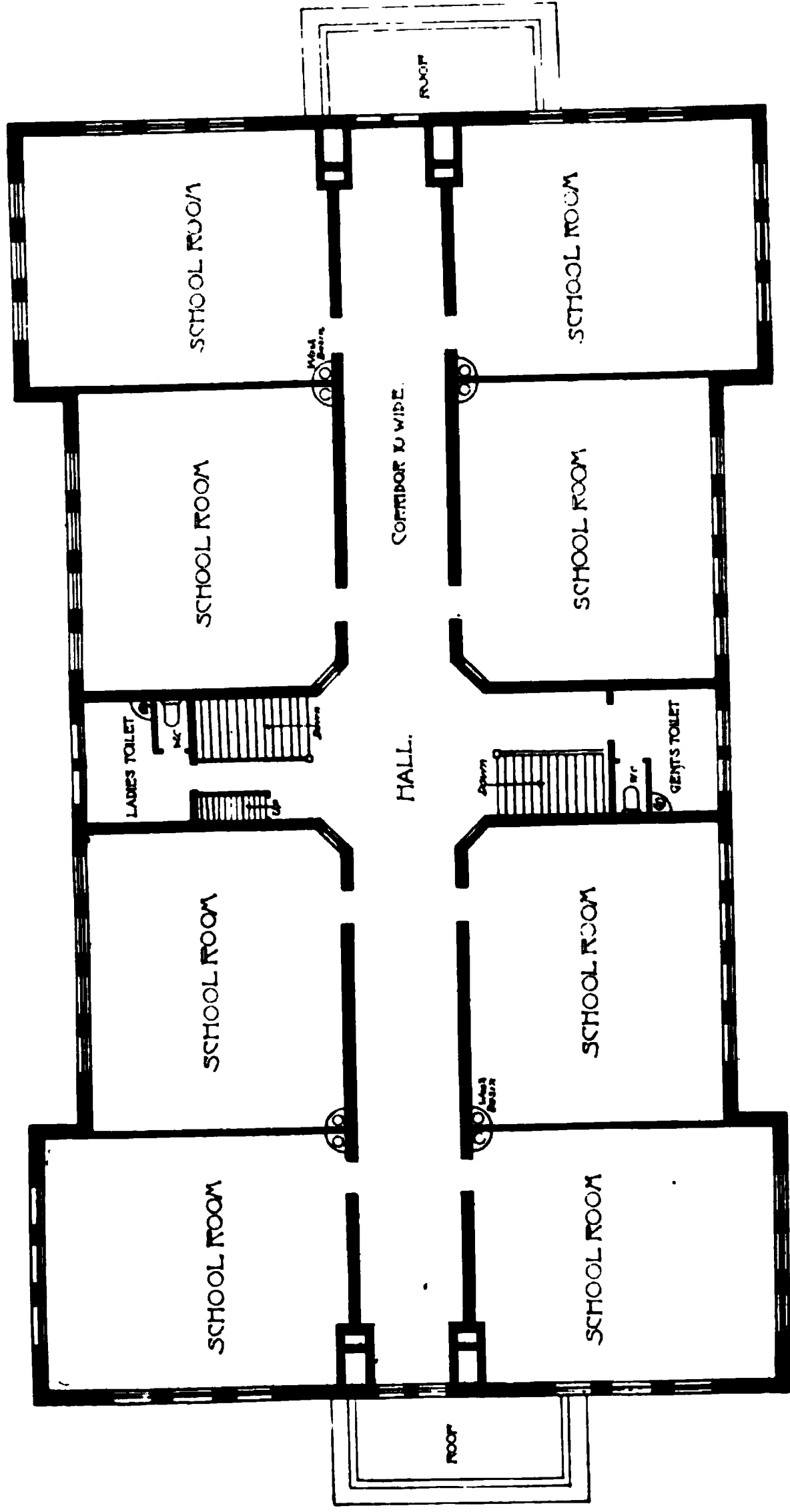




FIRST FLOOR PLAN.
1/8" = 1' SCALE.

MADISON AVE. SCHOOL
CHICAGO, ILL.

Pierce & Bickford Architects
NEW YORK



SECOND FLOOR PLAN.
3/8" = 1' SCALE.

MADISON AVE SCHOOL.
Elmira, N.Y.

Pierce & Bickford, Architects.
New York, N.Y.



FAR ROCKAWAY—UNION SCHOOL. Erected 1893. Cost, \$30,000.





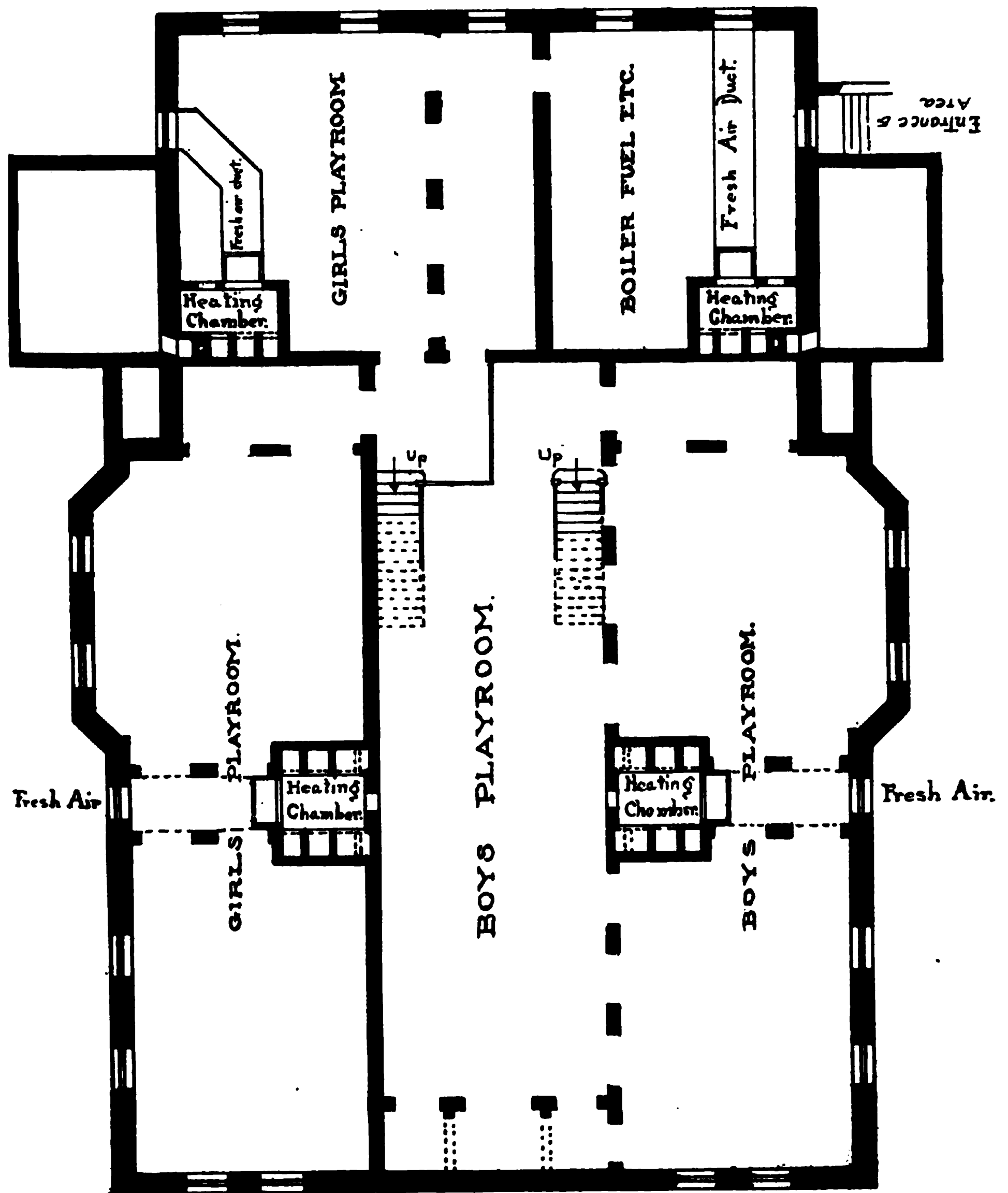
GENEVA—CORFTLAND STREET SCHOOL. Erected 1895. Cost, \$12,500.

ICH.

311



GENEVA--LEWIS ST. SCHOOL. Erected 1886. Cost, \$19,000.



LEWIS STREET SCHOOL

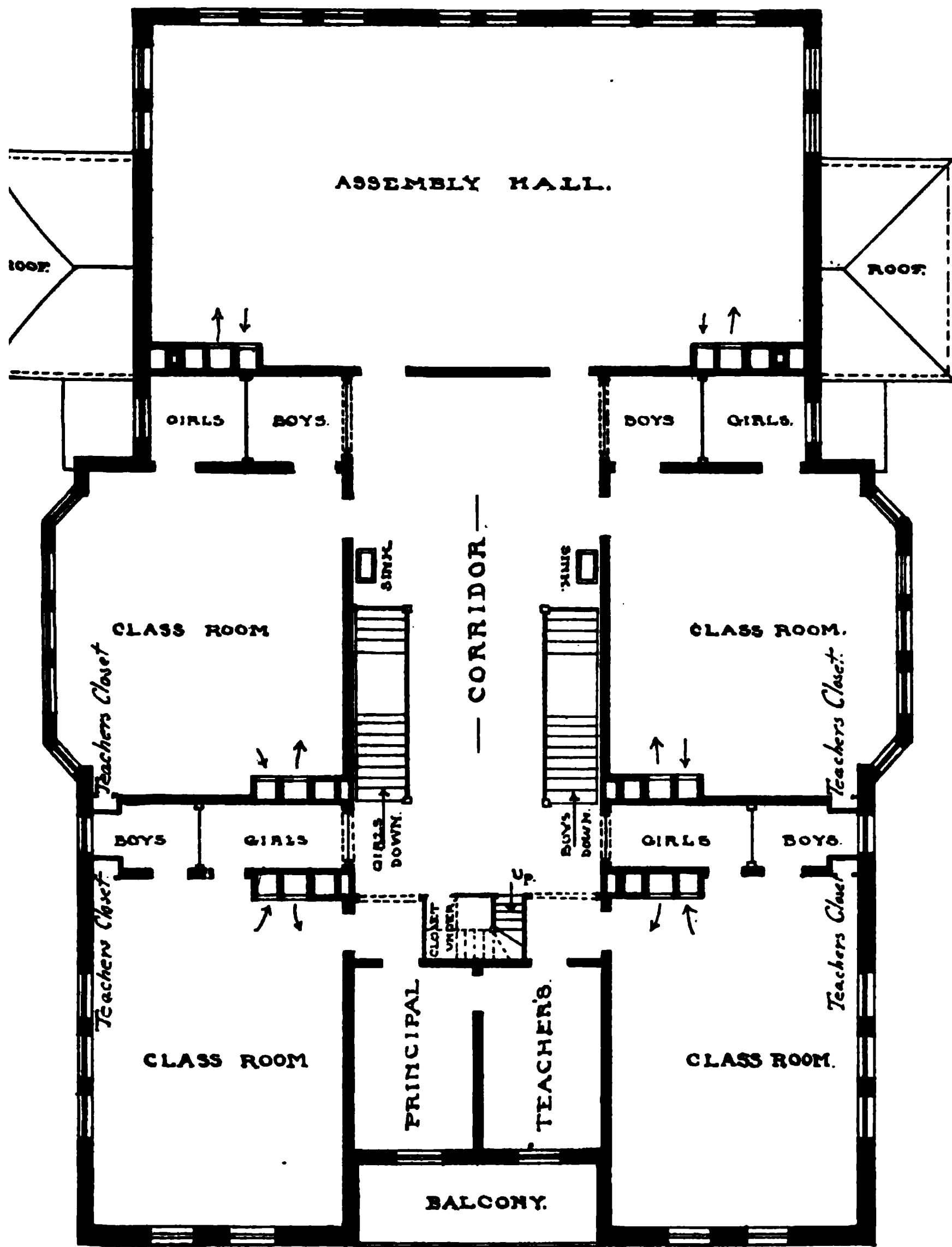
GENEVA N.Y.

WILSON POTTER ARCH'T.
3 UNION SO. N.Y. CITY.

BASEMENT PLAN
1/16" Scale.







LEWIS STREET SCHOOL

GENEVA N.Y.

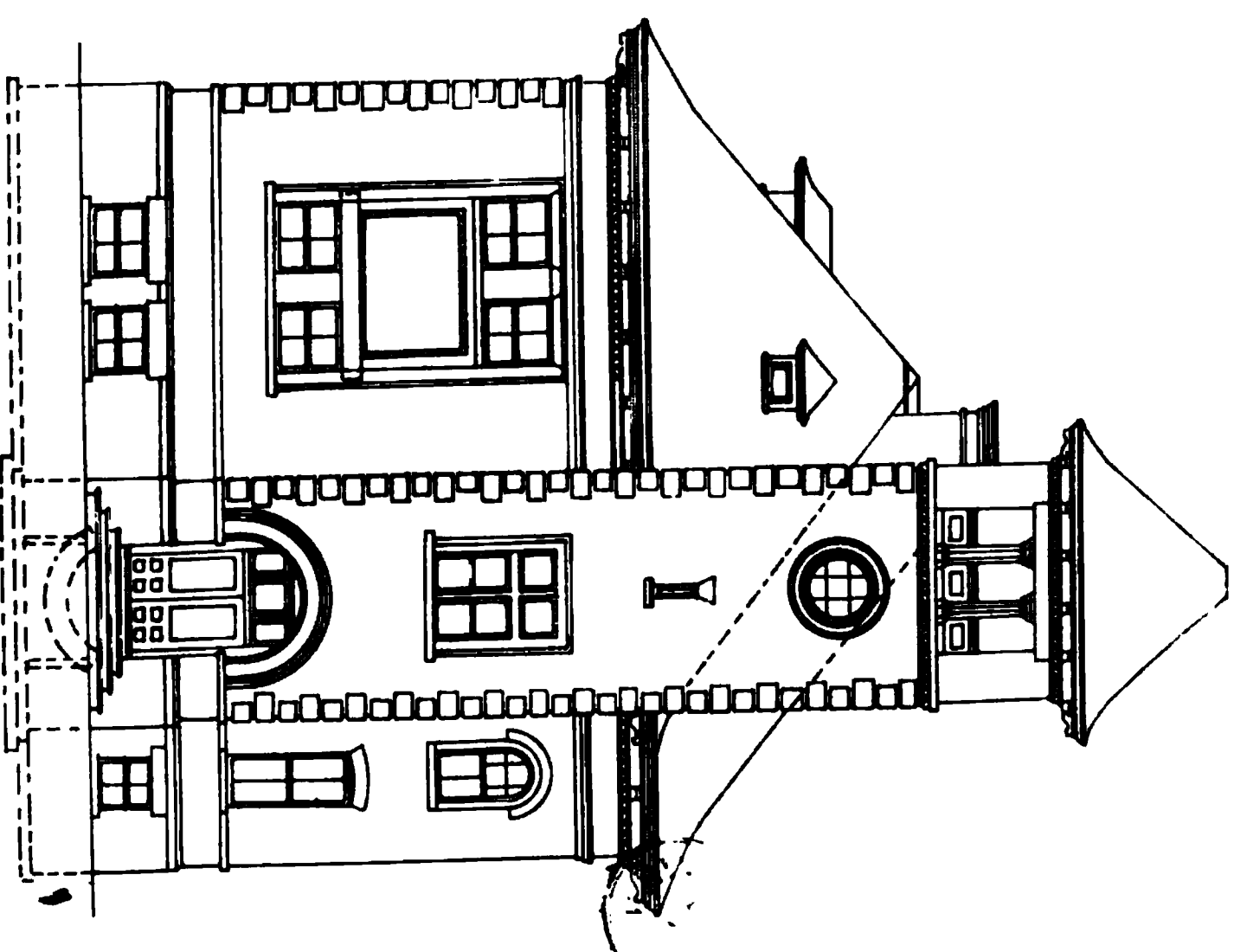
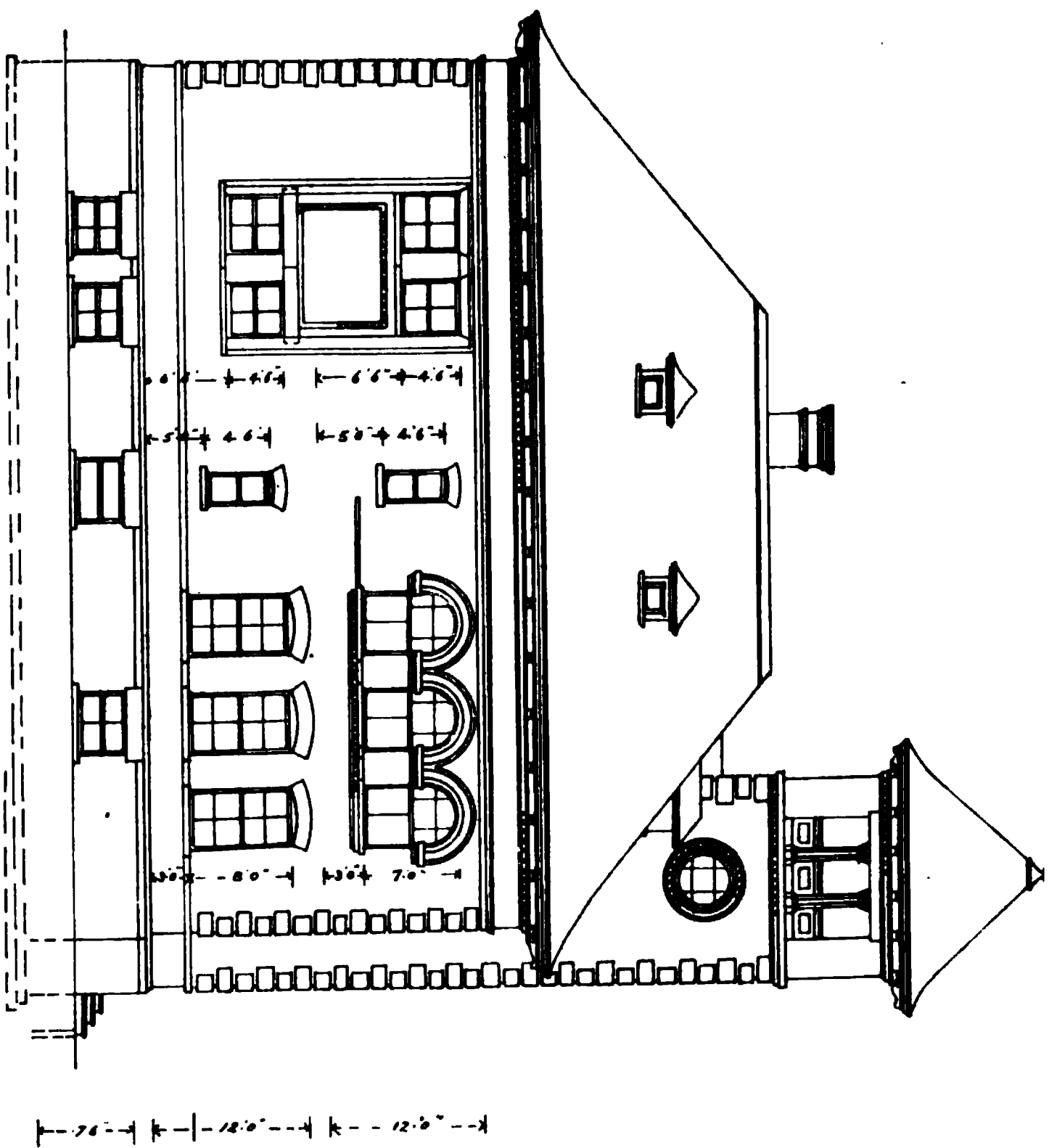
WILSON POTTER ARCHT.
3 UNION SQ. N.Y. CITY.

SECOND FLOOR, PLAN.
1/16" Scale.



GLEN COVE UNION SCHOOL. Erected 1898. Cost, \$25,000.

GLOVESVILLE—LEXINGTON AVE. SCHOOL. Erected 1893. Cost, \$14,000.



SIDE ELEVATION

SCALE 1/8" = 1'-0"

FRONT ELEVATION

FULLER & WHEELER,
ARCHITECTS, ALBANY, N.Y.

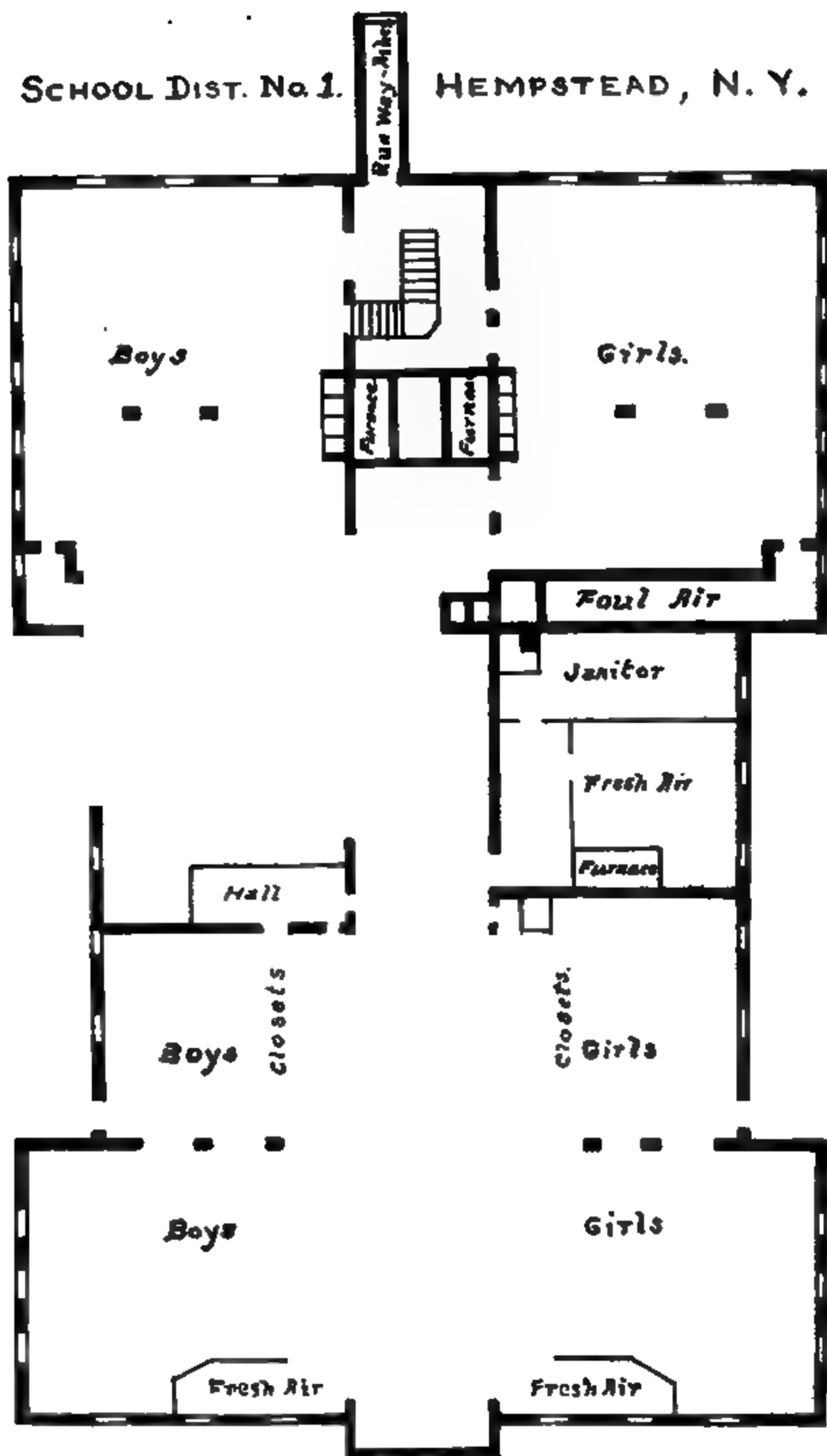
SCHOOL BUILDING
AT GLOVERSVILLE, N.Y.



HARTHEAD—SCHOOL No. 1. Erected
 { 1889, } Cost, { \$24,500.
 { 1895, } { \$10,500.

SCHOOL DIST. No. 1.

HEMPSTEAD, N. Y.



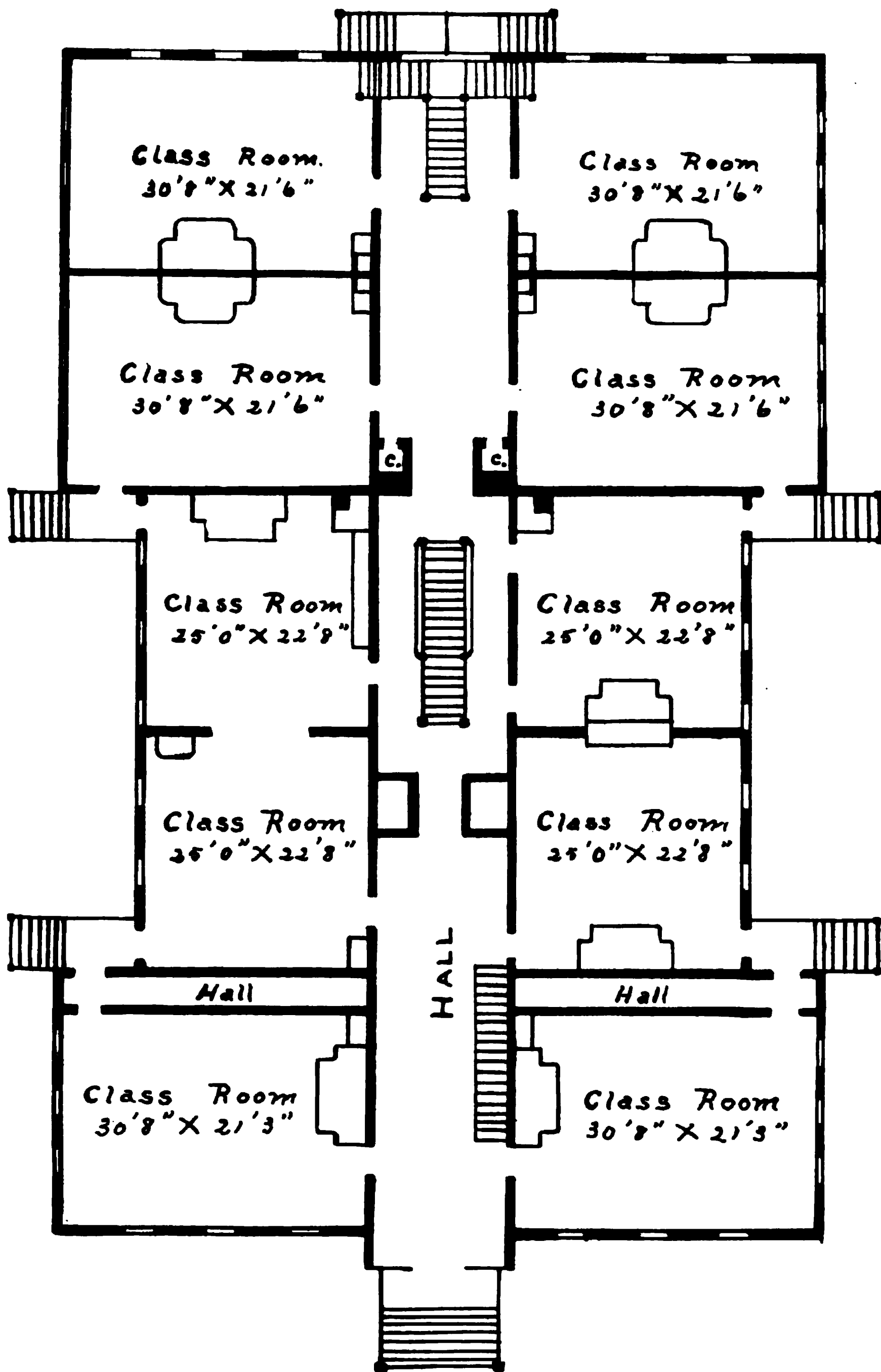
BASEMENT

PLAN.



SCHOOL DIST. No. 1.

HEMPSTEAD, N. Y.

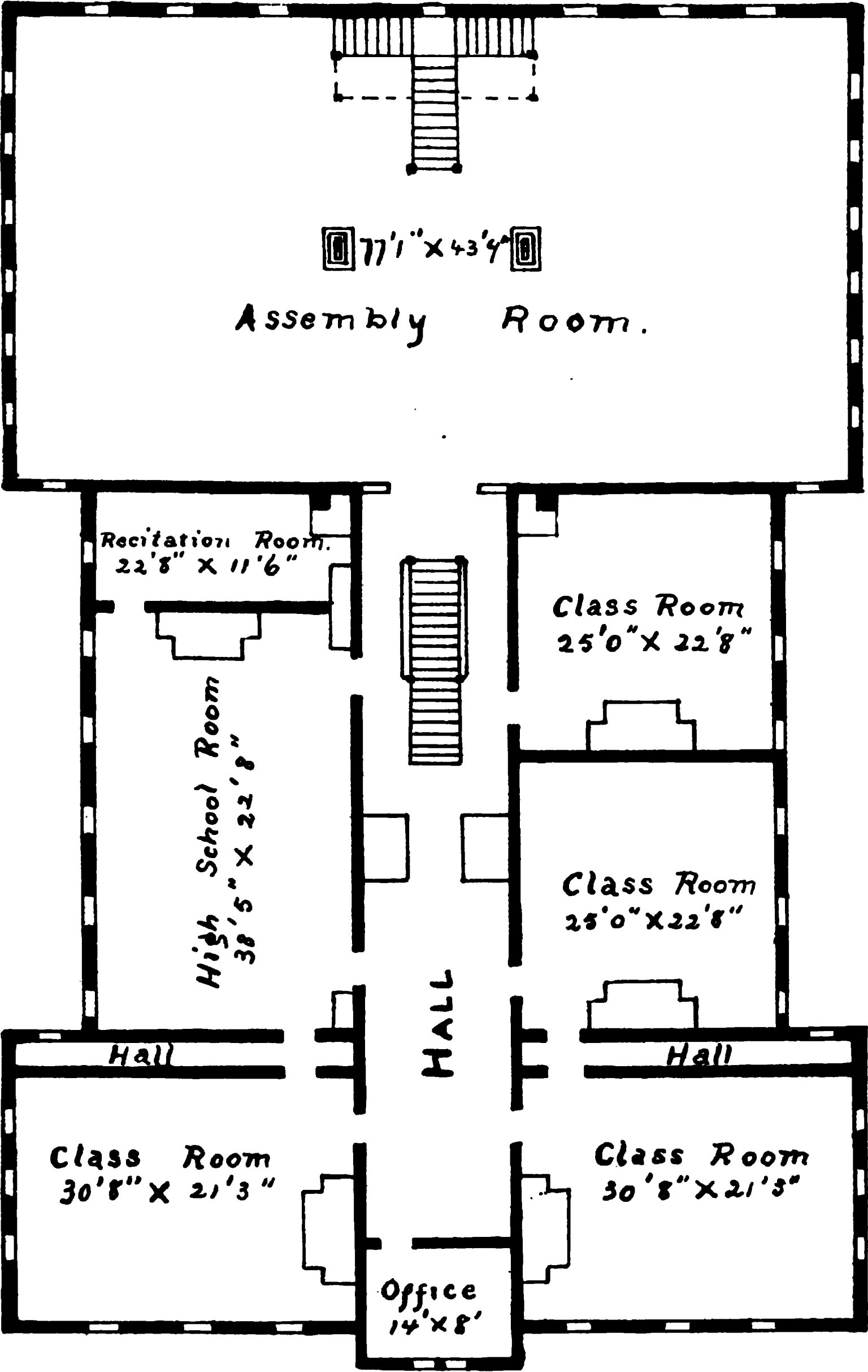


FIRST

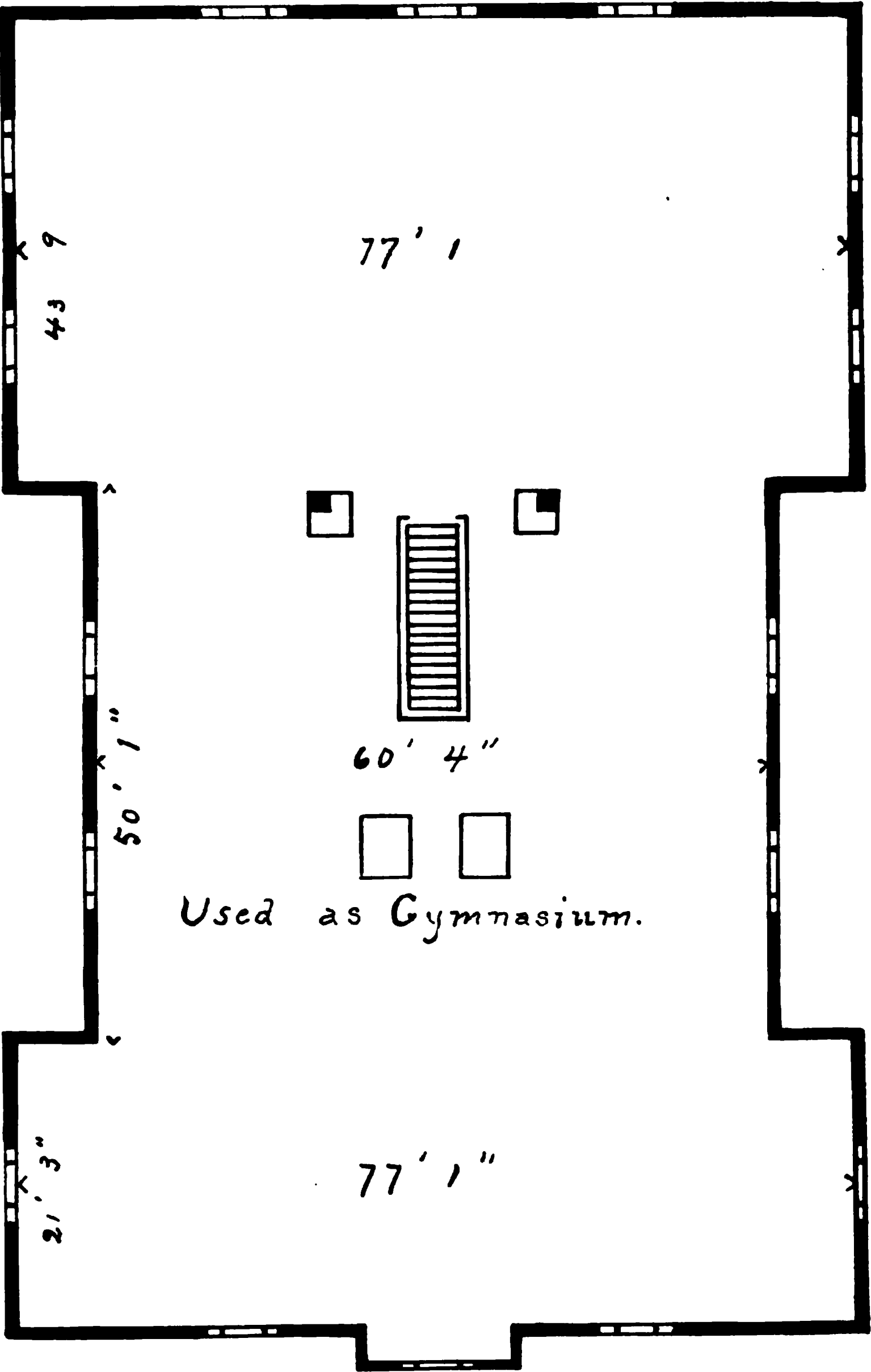
FLOOR

PLAN.





SECOND FLOOR PLAN.



THIRD FLOOR PLAN.





HULTON UNION SCHOOL. Erected 1892. Cost, \$6,000.





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HOLLIS UNION SCHOOL. Erected 1896. Cost, \$20,000.





HORNELLSVILLE—COLUMBIAN SCHOOL. Erected 1886. Cost, \$20,000.







HUNTER UNION SCHOOL. Erected 1898. Cost, \$16,500.

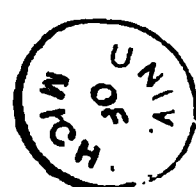




LANSINGBURGH—HASKELL SCHOOL. Erected 1895. Cost, \$37,500.



MOUNT VERNON.—SCHOOL No. 7. Erected 1895. Cost, \$21,800.



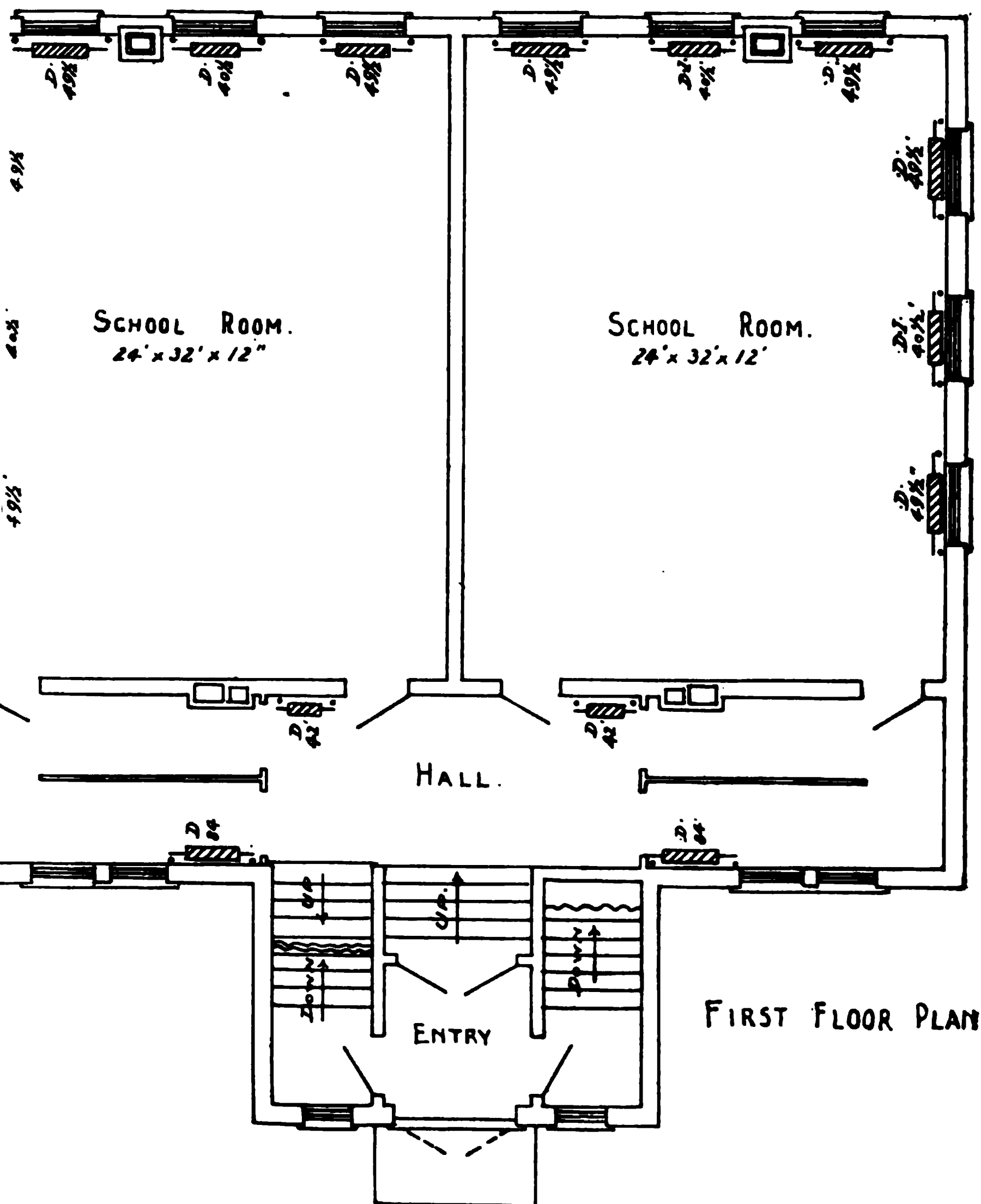


NEW ROCHELLE--WEYMAN AVE. SCHOOL. Erected 1886. Cost, \$52,000.

NIAGARA FALLS—GRAMMAR SCHOOL. Erected 1895. Cost, \$25,000.

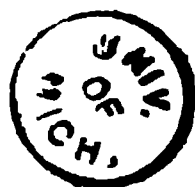
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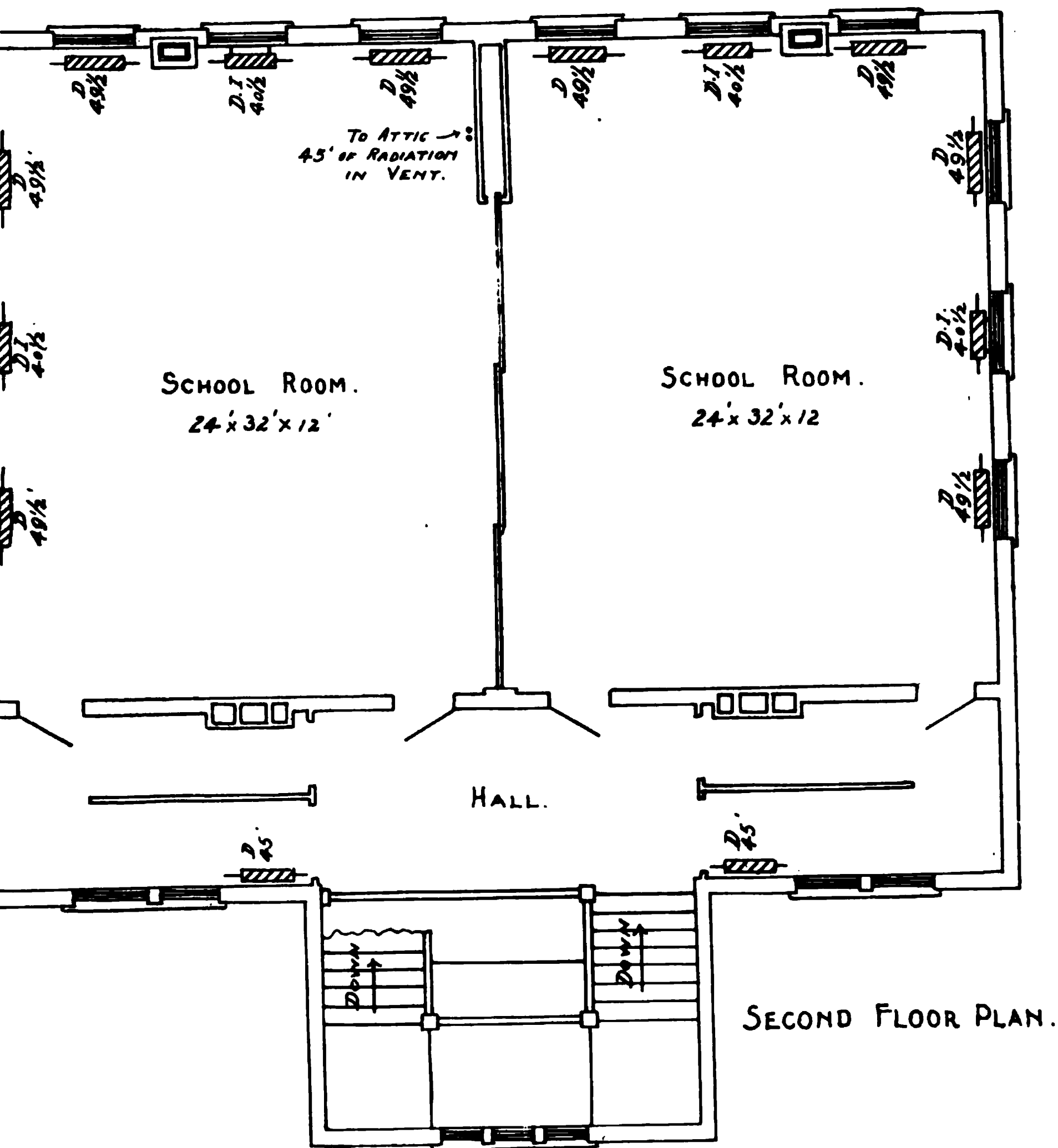
PLATTSBURGH—HAMILTON ST. SCHOOL. Erected 1896. Cost, \$4,000.



HAMILTON ST. SCHOOL,
PLATTSBURGH.

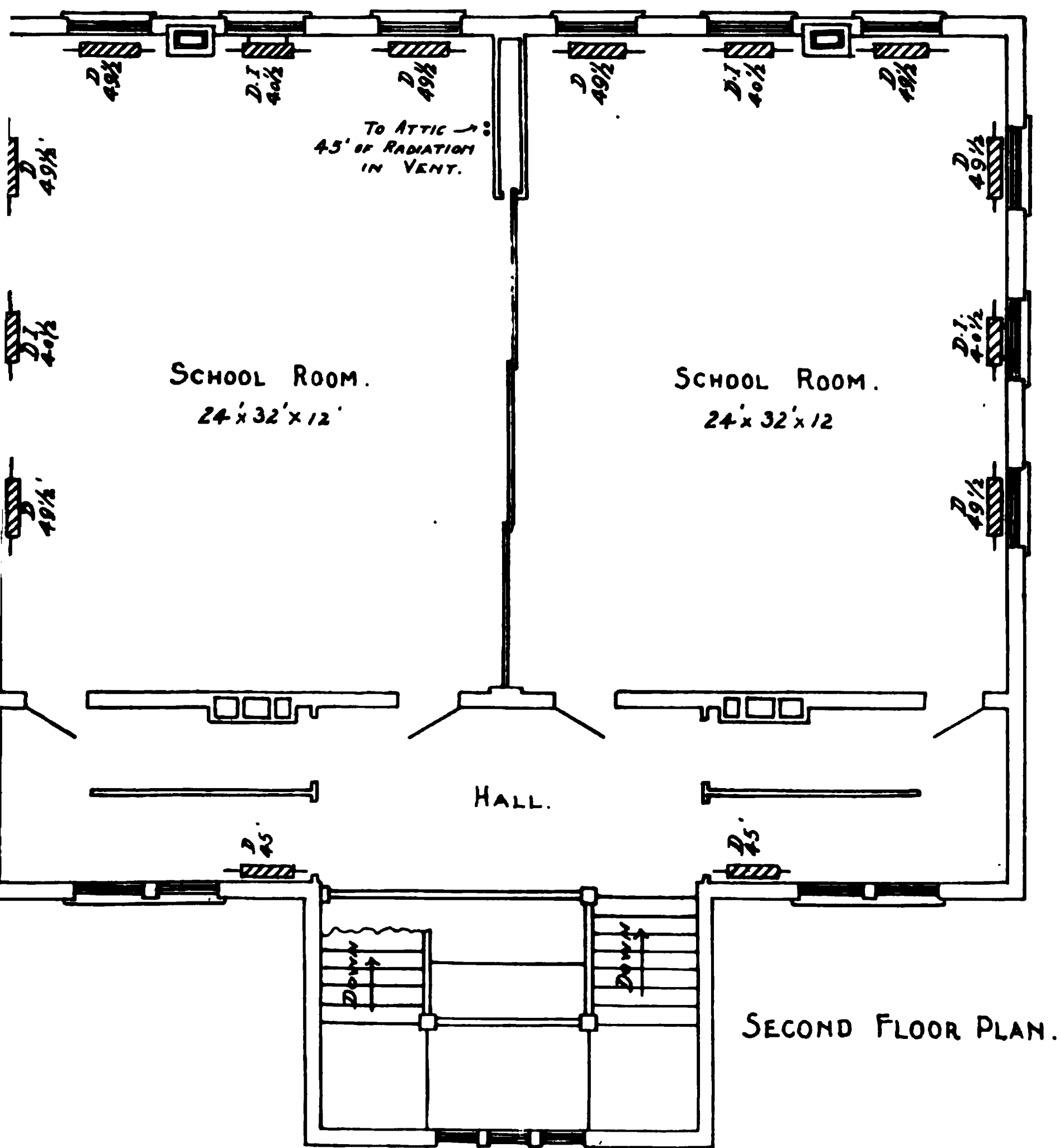
E. LORD,
ARCHITECT.





HAMILTON ST. SCHOOL,
PLATTSBURGH.

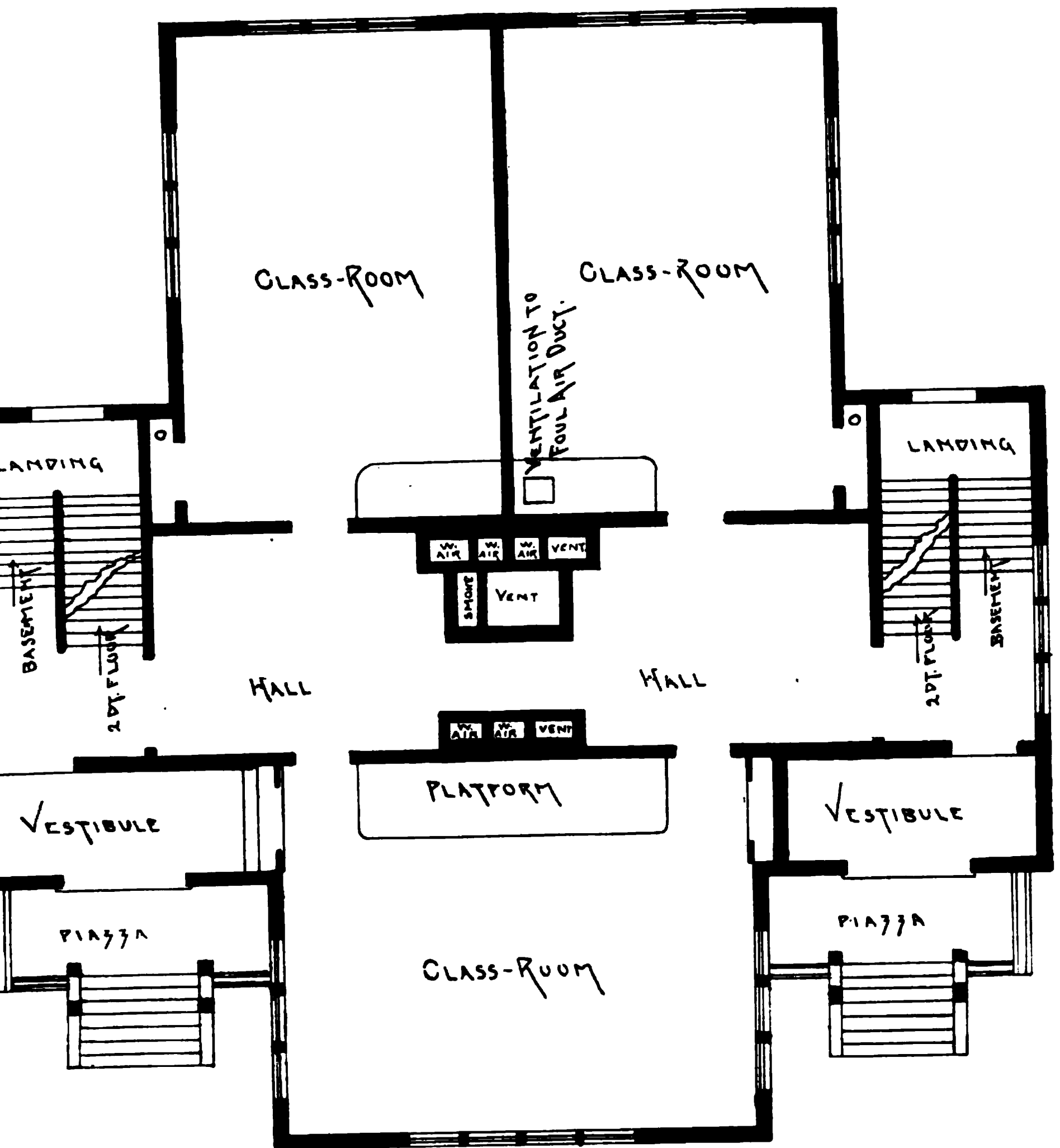




HAMILTON ST. SCHOOL,
PLATTSBURGH.

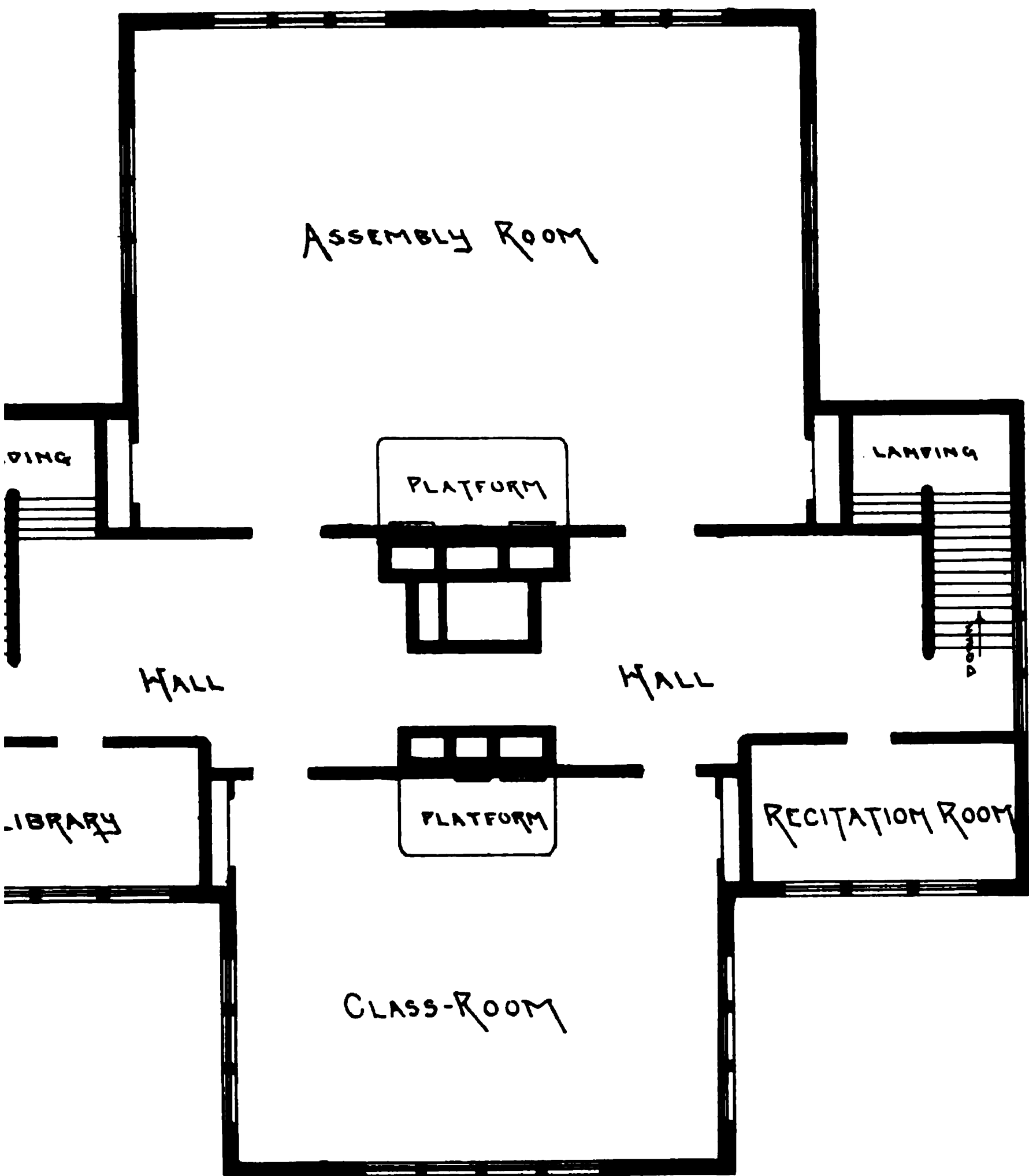


POTSDAM SCHOOL—DISTRICT No. 3. Erected 1893. Cost, \$10,650.



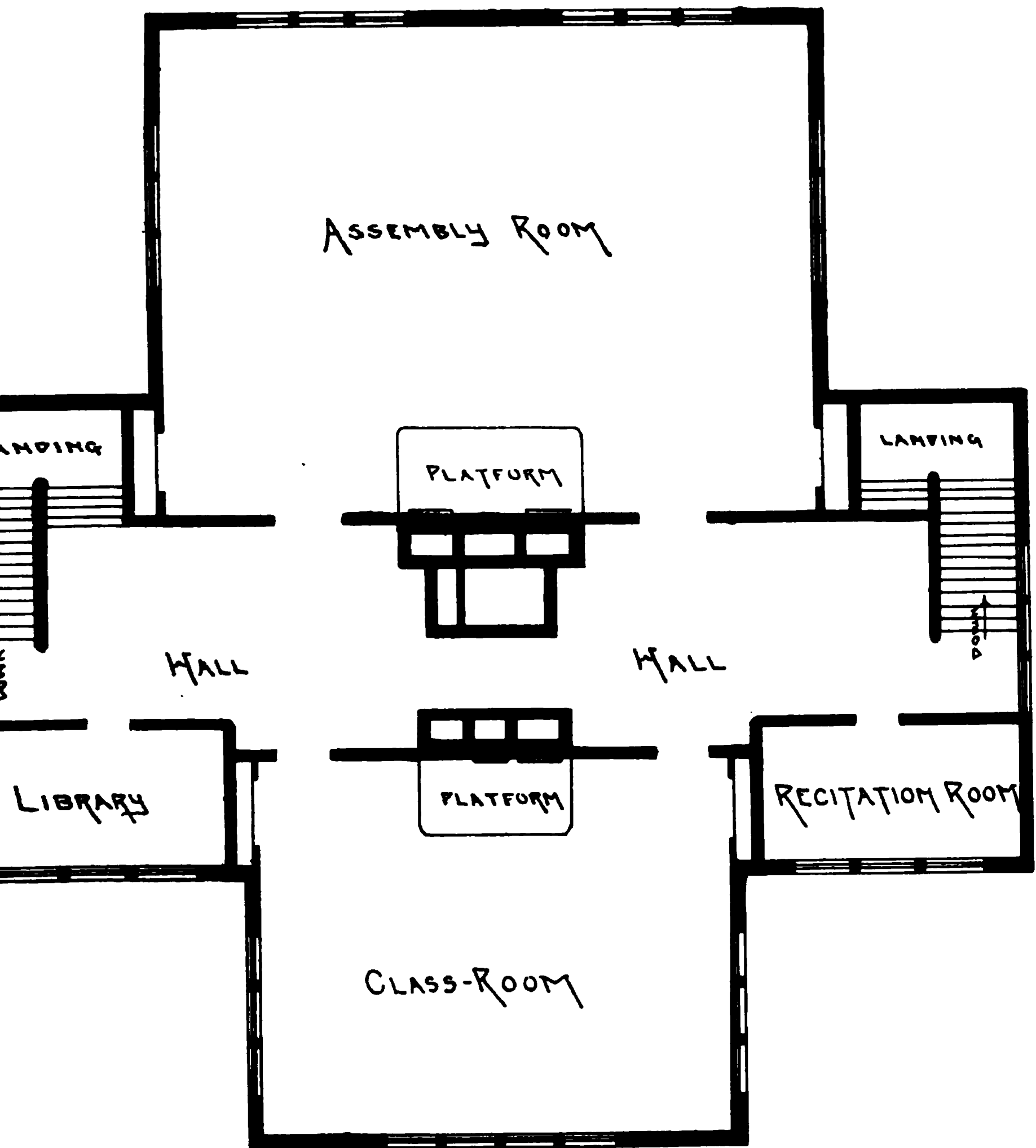
→ FIRST FLOOR PLAN ~

POTSDAM No. 8.



~ SECOND FLOOR PLAN ~

POTSDAM No. 8.



→ SECOND FLOOR PLAN →

POTSDAM No. 8.





SANDY HILL HIGH SCHOOL. ESTABLISHED 1887. VOLUME 1, 1900.

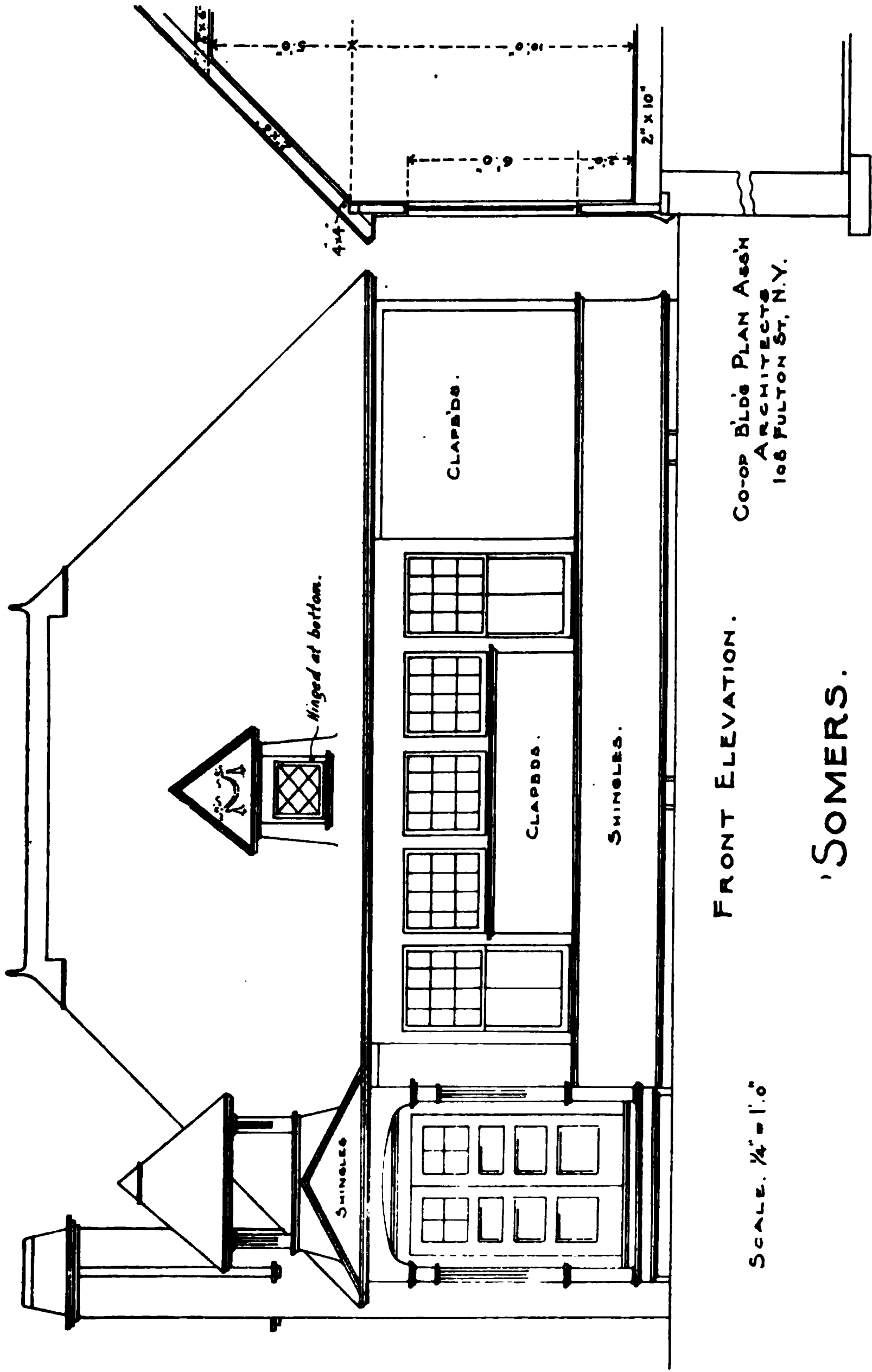


SANDY HILL HIGH SCHOOL. Erected 1892. Cost, \$11,000.

SCHAGHTICOKE UNION SCHOOL. Erected 1895. Cost, \$16,000.

SOMERS - DISTRICT SCHOOL. Erected 1886. Cost, \$225.

SOMERS—DISTRICT SCHOOL. Erected 1896. Cost, \$925.

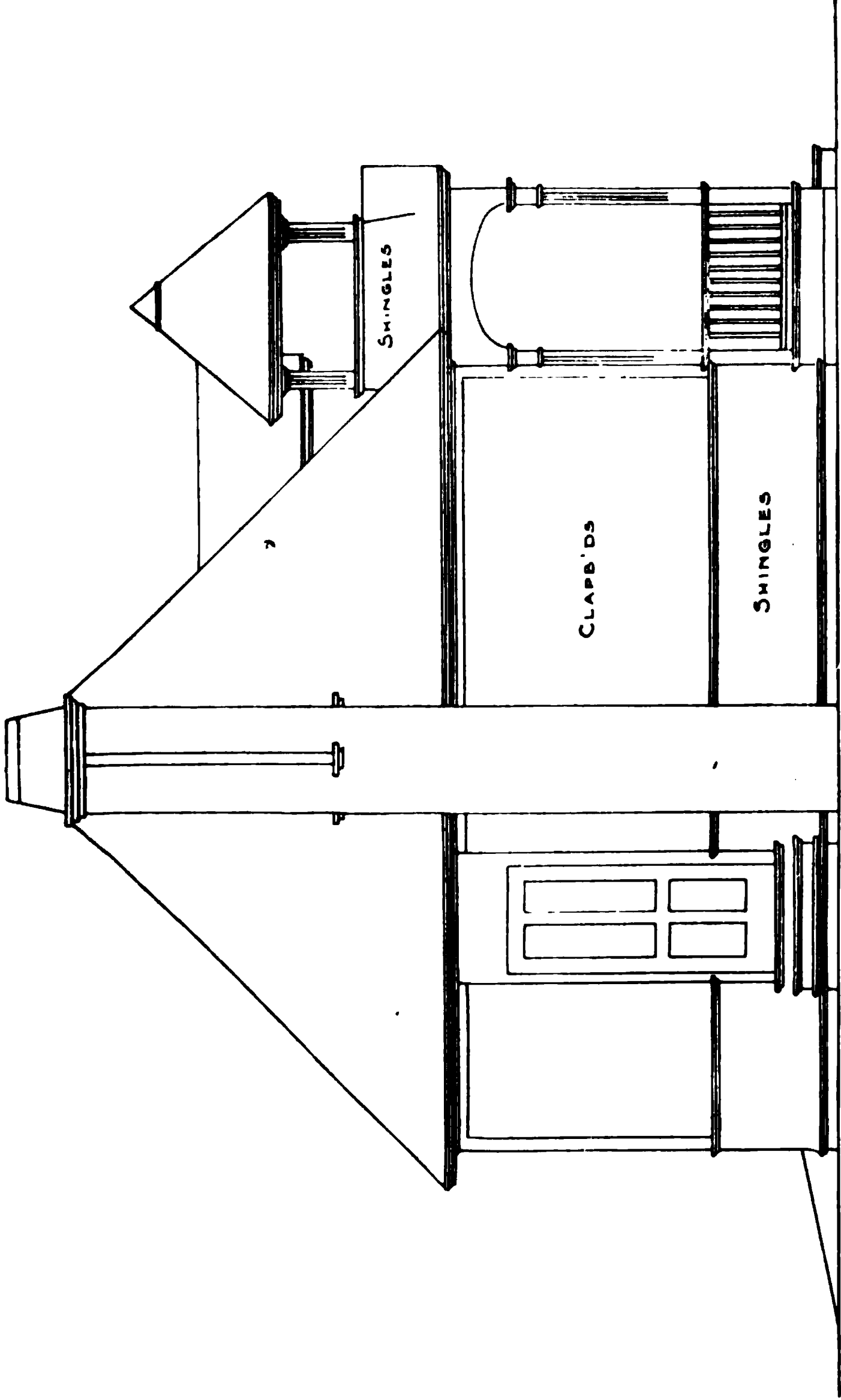


FRONT ELEVATION.

CO-OP BLDG PLAN ASSN
ARCHITECTS
108 FULTON ST, N.Y.

SCALE. $\frac{1}{4}" = 1'-0"$

'SOMERS.

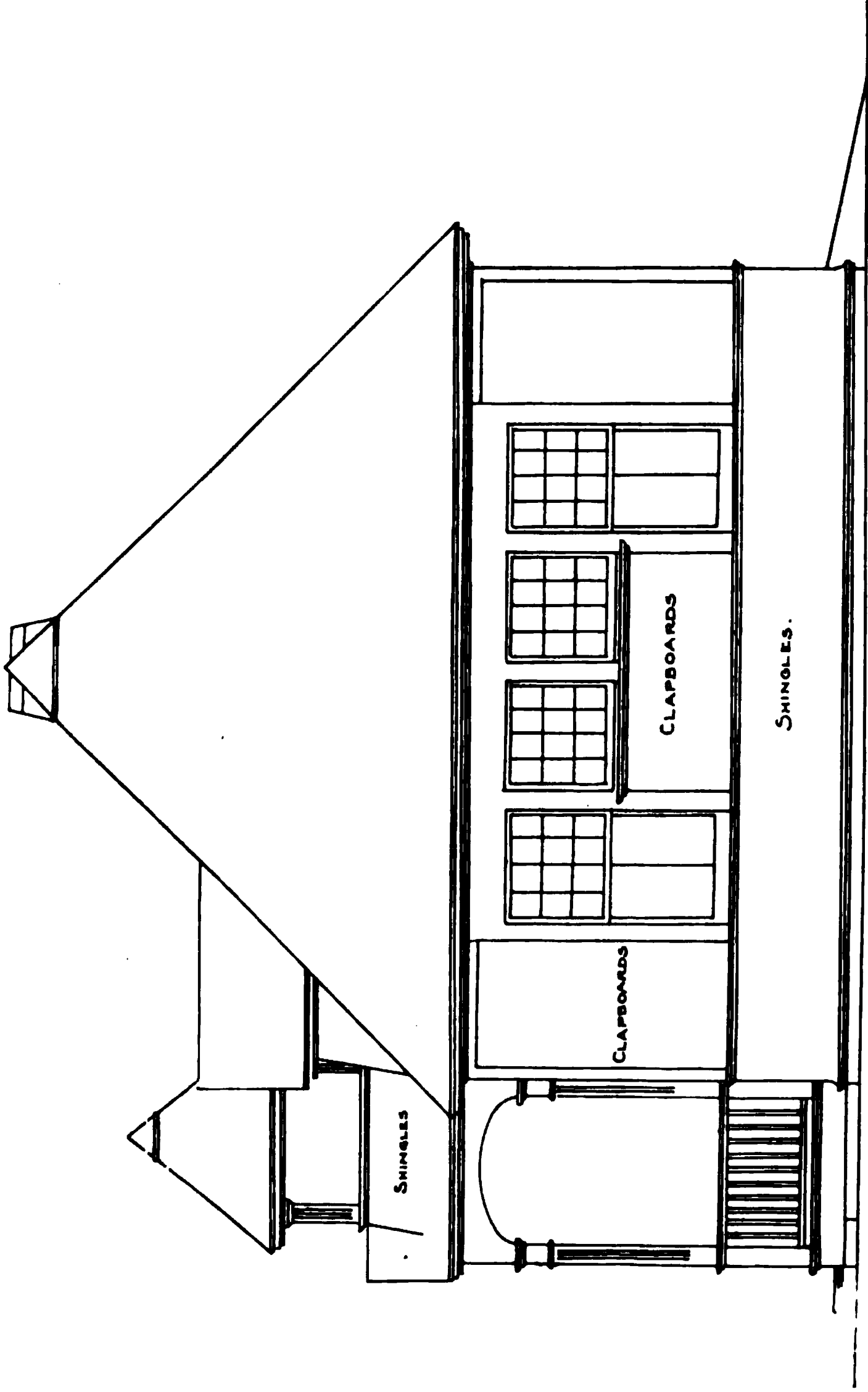


SIDE ELEVATION

Co-op Bldg Plan Ass'n
ARCHITECTS
108 FULTON ST N.Y.

SCALE 1/4" = 1'0"

SOMERS.

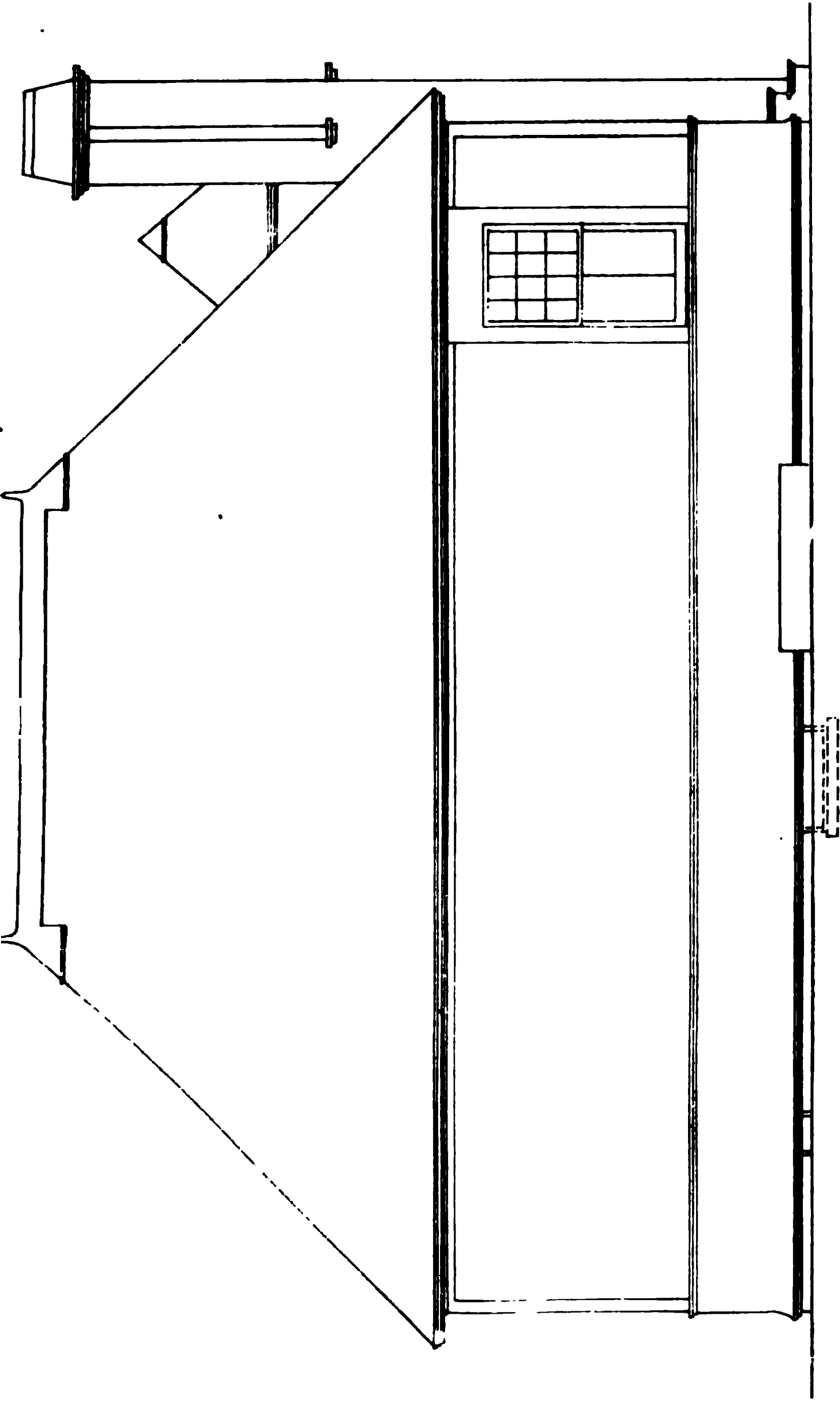


SCALE. $\frac{1}{4}$ IN. = 1 FT

SIDE ELEVATION.

CO-OP. BLDG. PLAN ASSO^{CM}
"ARCHITECTS"
108 FULTON ST. N. Y.

SOMERS.



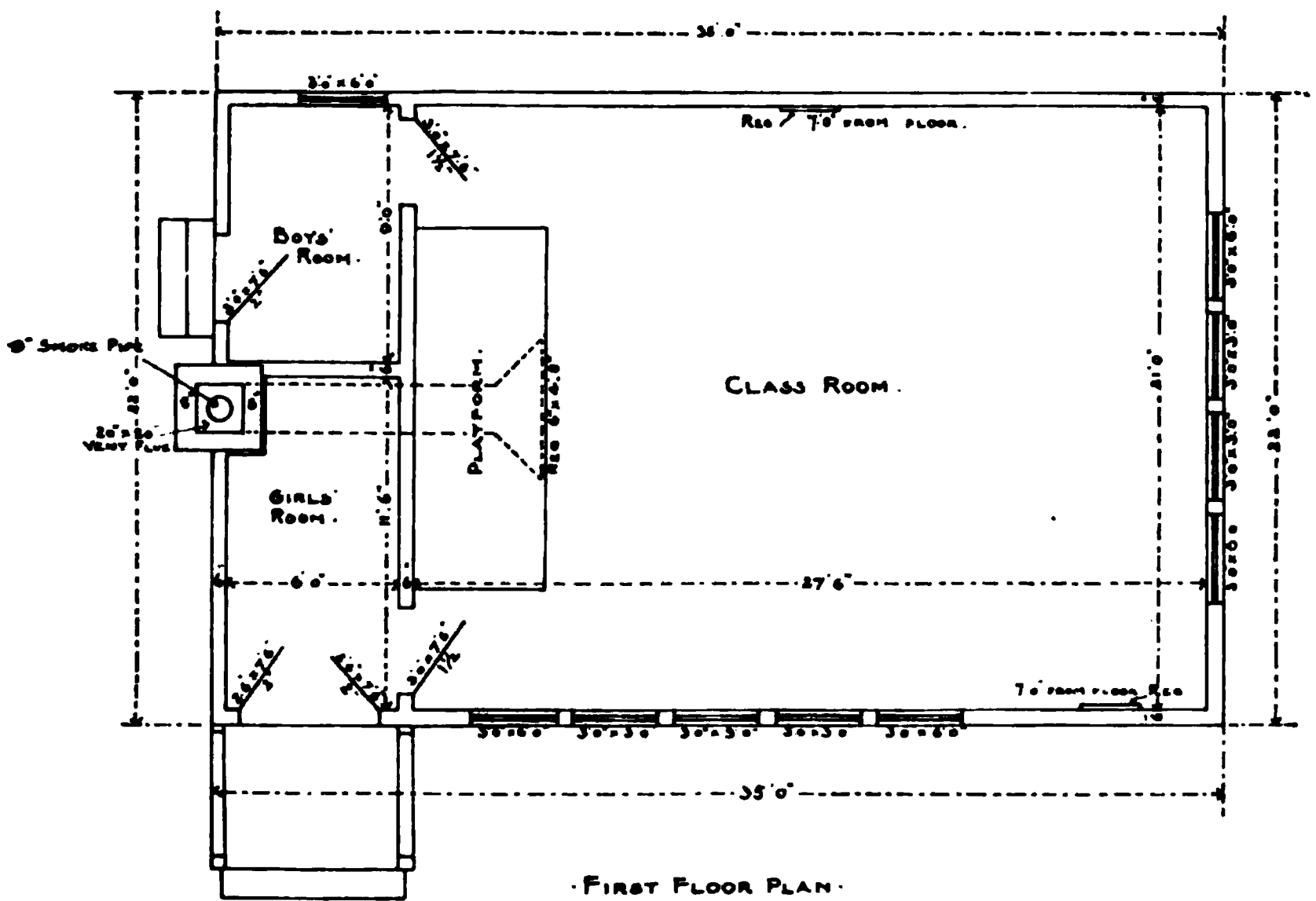
Co-op. Bldg Plan Ass'n
ARCHITECTS.
108 FULTON ST. N.Y.

SCALE. $\frac{1}{4}" = 1'0"$

REAR ELEVATION.

SOMERS.





· FIRST FLOOR PLAN ·

SCALE, 1/8" IN 1'-0"

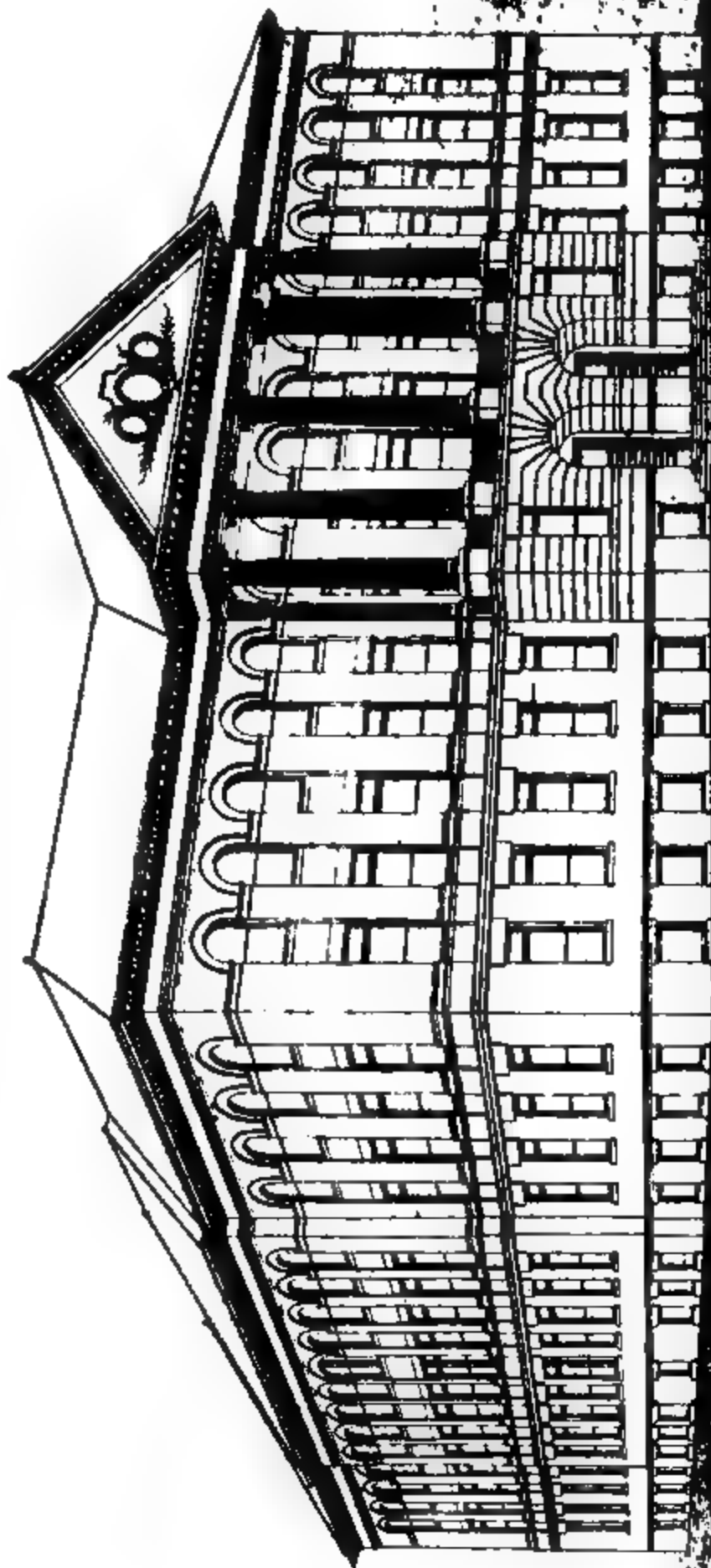
SOMERS.

CO-OP BLDG PLAN ASSO.
ARCHITECTS
106 FULTON ST. N.Y.



STAPLETON - UNION SCHOOL No. 2. Erected 1898. Cost, \$108,000.





— THE UTICA FREE ACADEMY —

DESIGNED BY J. C. HARRIS, ARCHT.
UTICA, N.Y.

UTICA FREE ACADEMY. Erected 1897. Cost, \$120,000.



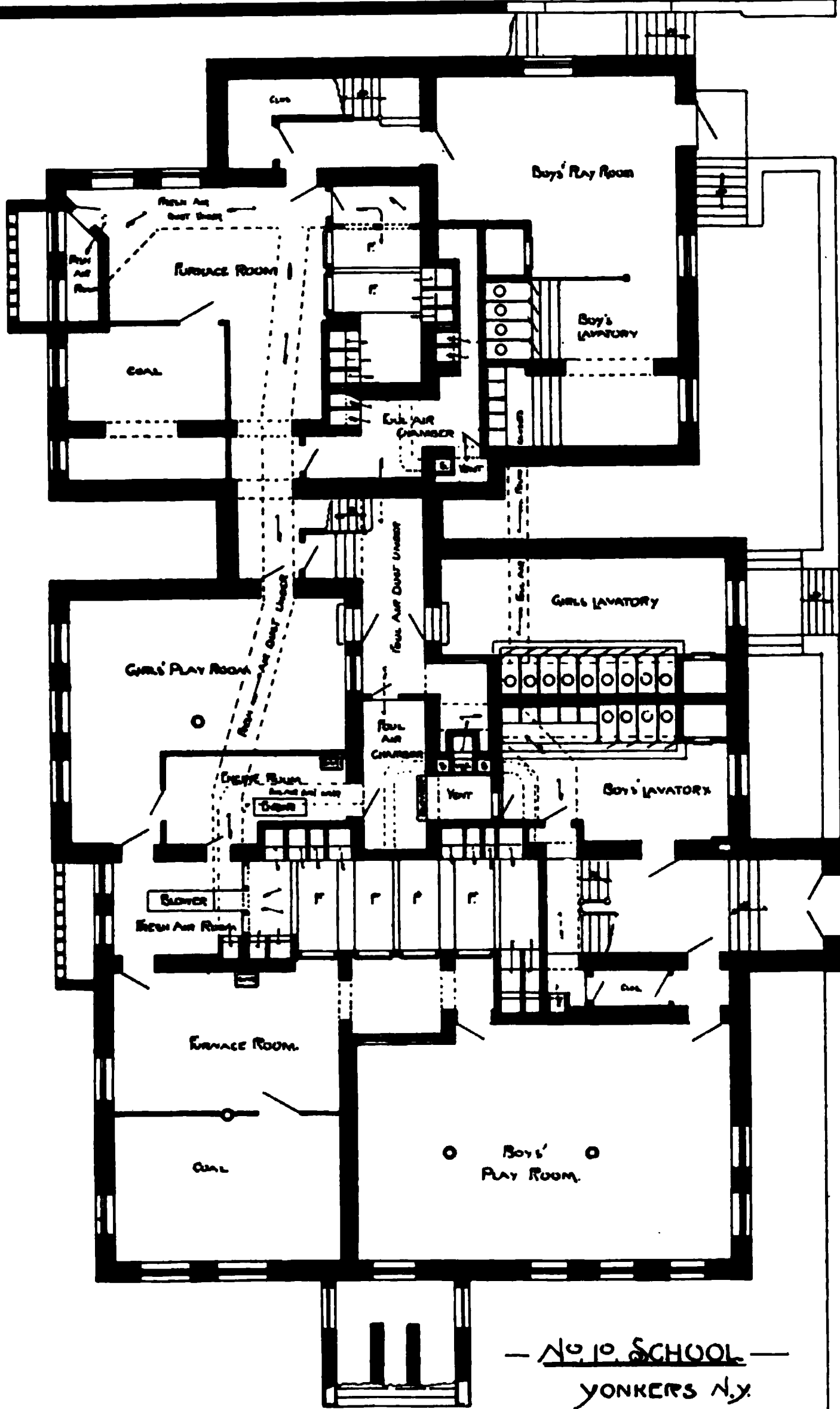




WALDEN SCHOOL—DISTRICT No. 13. Erected 1896. Cost, \$2,200.



YONKERS—SCHOOL No. 10. Erected 1897. Cost, \$60,000.



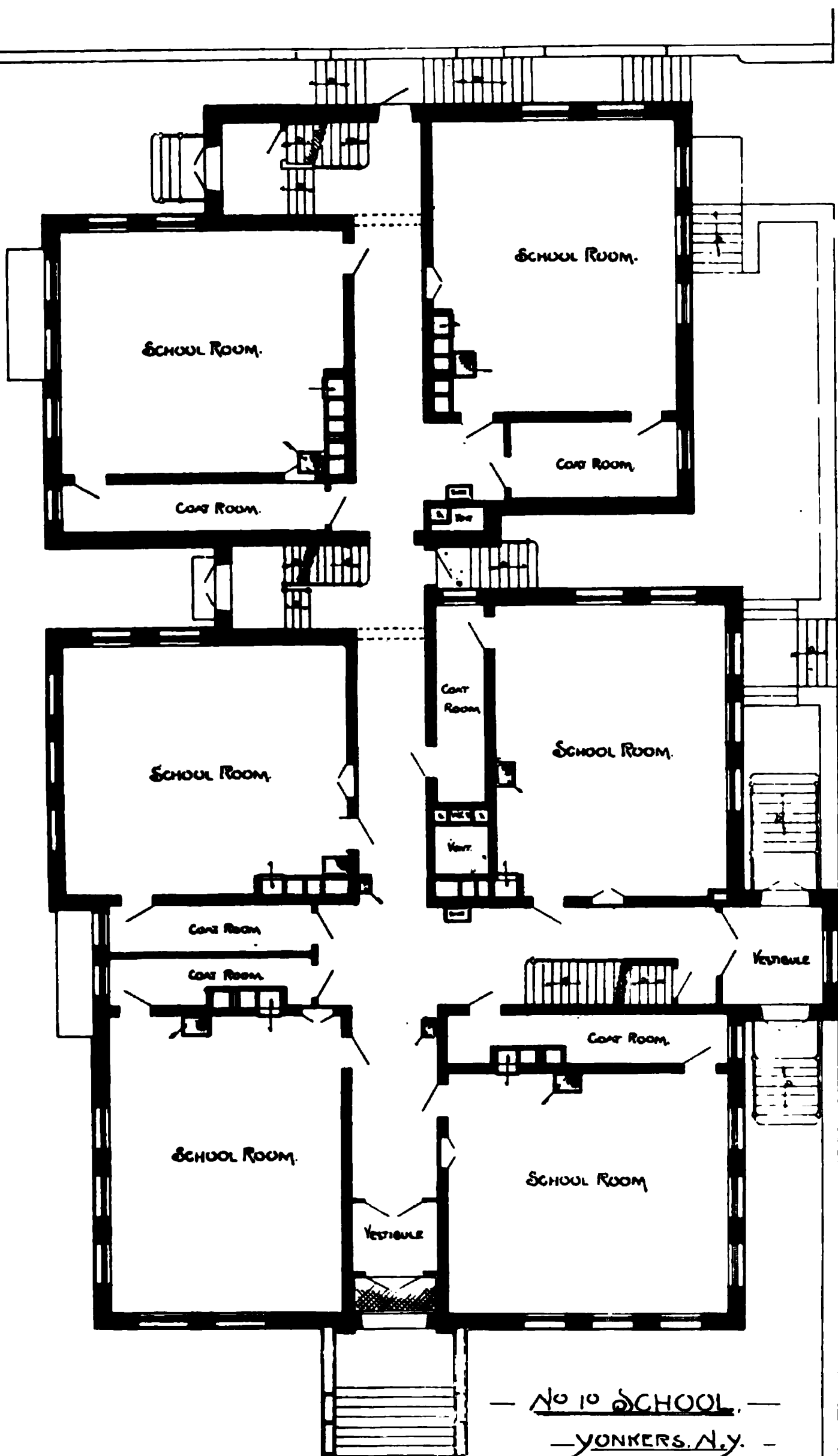
— No. 10 SCHOOL —
YONKERS N.Y.

— PLAN OF BASEMENT —

CEILING 10 FEET.

SCALE 1/4" = 1 FOOT

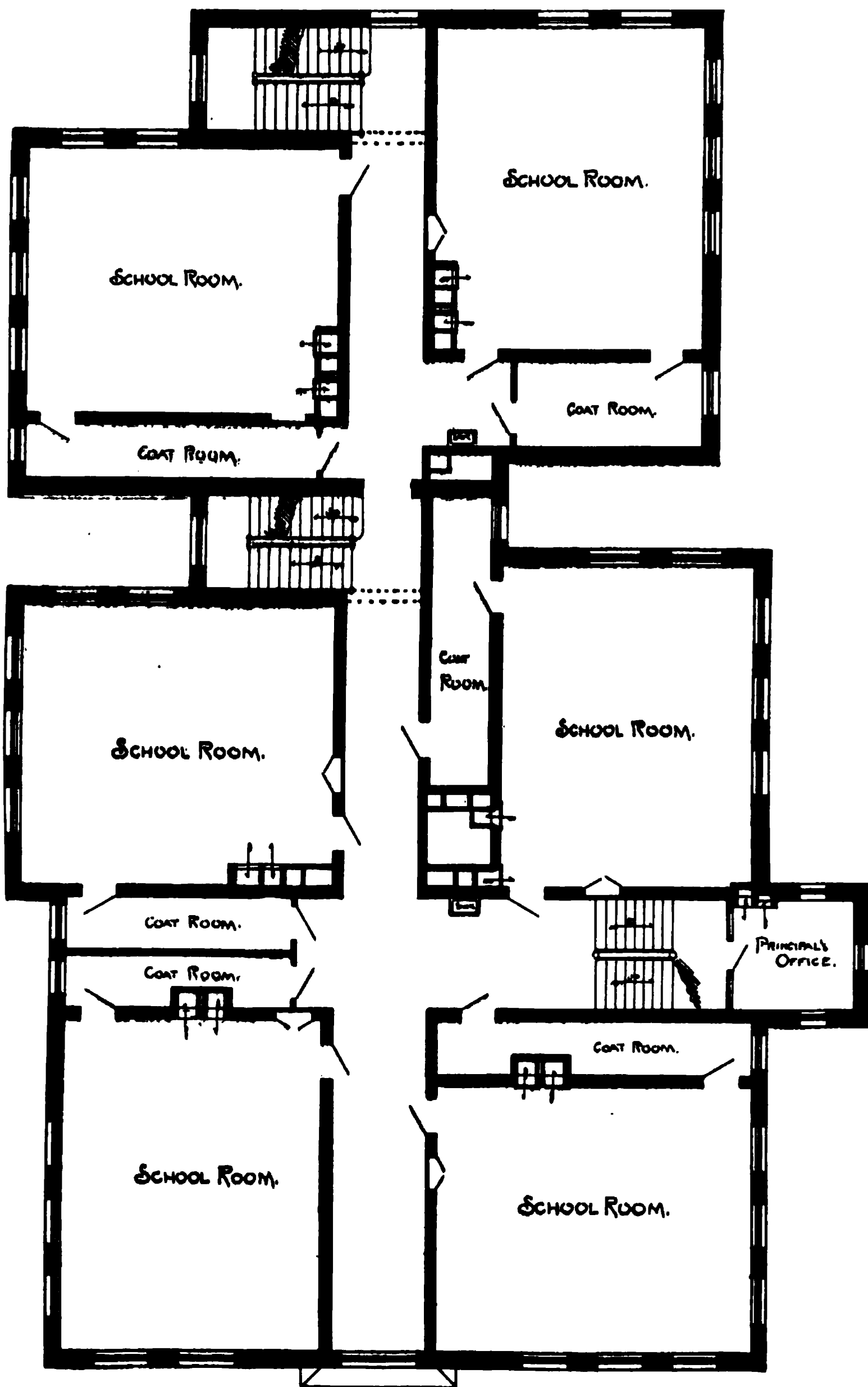




CEILING 12 FT.

BUILDING COMPLETED SEP 1916.
C.C. CHIPMAN ARCHT. N.Y.C.

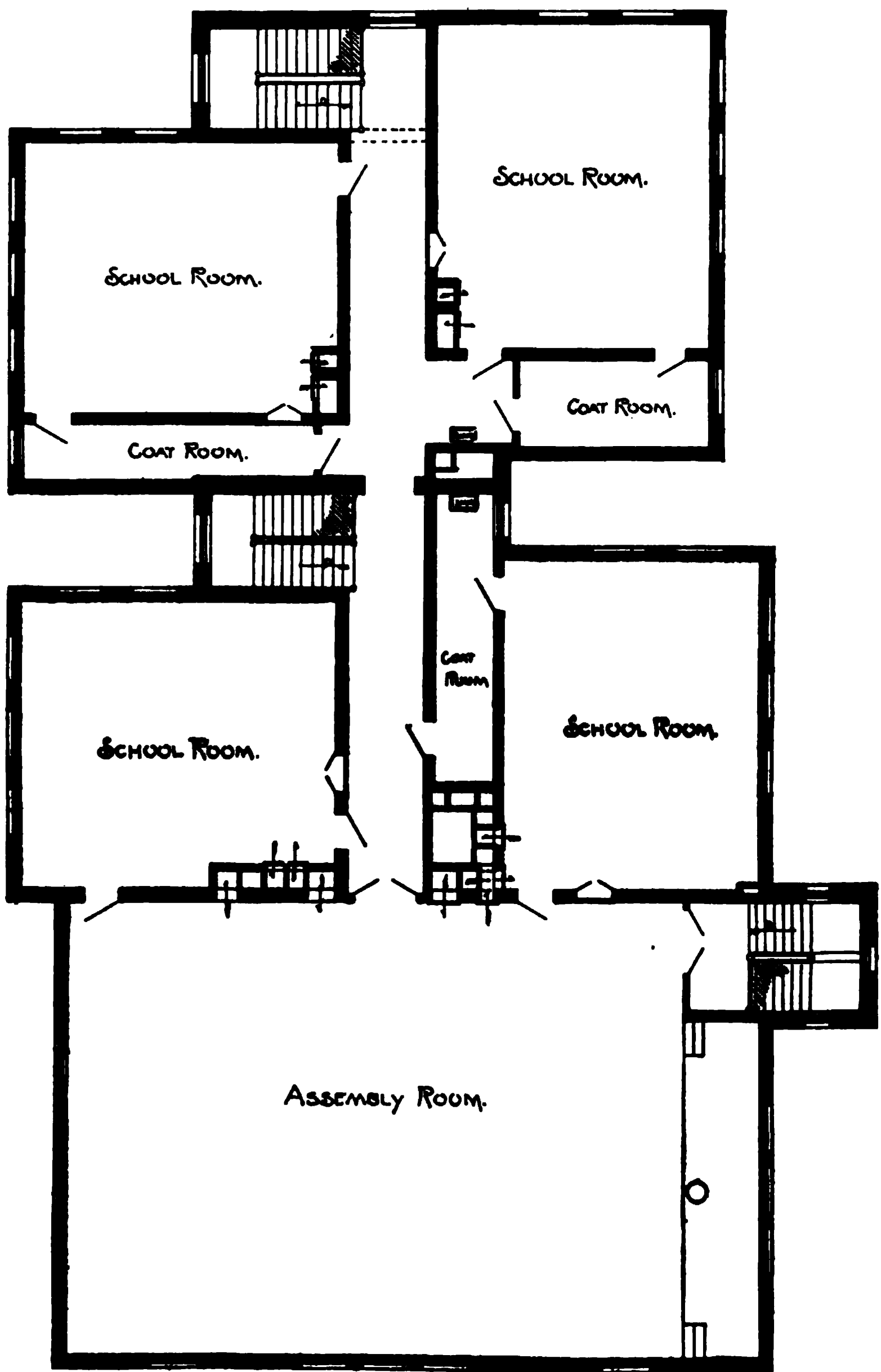




118

— NO. 19 SCHOOL, YONKERS, N.Y. —
 — PLAN OF SECOND FLOOR —





— NO. 19 SCHOOL, YONKERS, N.Y. —
 — PLAN OF THIRD FLOOR. —



APPENDIX

EXHIBIT No. 2

PROCEEDINGS

OF THE

Council of School Superintendents

October 14--16, 1896

COUNCIL OF SCHOOL SUPERINTENDENTS

OF THE

STATE OF NEW YORK

Proceedings of the Fourteenth Annual Meeting of
the Council, Held at Utica, New York,
October 14, 15 and 16, 1896

OFFICERS OF THE COUNCIL

Marcus W. Scott..... President
A. B. Blodgett..... Vice-president
Emmet Belknap..... Secretary and treasurer

The fourteenth annual meeting convened in Library Hall, Utica, N. Y., at 2.30 o'clock p. m., Wednesday, October 14, 1896, President Marcus W. Scott in the chair. The State Superintendent of Public Instruction, State Truant Officer A. M. Wright, Supervisor A. S. Downing and Messrs. Finegan, Wood and Wiswell of the Department of Public Instruction; Messrs. C. N. Cobb and Arthur G. Clement, of the Regents' office, University of the State of New York; Dr. Albert S. Bickmore, of the American Museum of Natural History; Mr. C. W. Bardeen; the principals of the State normal schools at Albany, Potsdam, Plattsburgh and Geneseo, and superintendents from 36 cities and 26 villages in the State were present.

PROGRAM OF REPORTS AND DISCUSSIONS

WEDNESDAY, 3 P. M.

Teachers' Tenure of Office, and the Best Methods of Securing Professional Growth of Teachers in Service.

What Would be a Proper Distribution of Credits in the Uniform Examination Questions?

Vertical Writing: Its Advantages and Disadvantages.

WEDNESDAY, 8 P. M.

Illustrated Lecture: The National Yellowstone Park, Prof. Albert S. Bickmore, A. M., Ph. D. The lecture was given in Association Hall.

THURSDAY, 9.30 A. M.

Report of Committee on Legislation, Charles W. Cole, chairman.
Report of Committee on Courses of Study for Training Schools or Teachers' Classes, William H. Maxwell, chairman.
Report of Committee on Examination and Certification of Teachers of Special Subjects, F. J. Diamond, chairman.
The Necessity of State Schools for Truants.

THURSDAY, 2.30 P. M.

Child Study.
How Can Superintendence be Made More Effective.
Should the State Pay Teachers' Quotas for Teachers Not Licensed Under some form of State Authority?
Election of Officers and Selection of Place for Holding Next Annual Meeting.

THURSDAY, 8 P. M.

The Kindergarten: Its Advantages and Requirements.
Reading: Primary and Secondary.
How Can We Stimulate Love for Good Reading?

FRIDAY, 9.30 A. M.

Should Physical Training be Compulsory in Public Schools?
Requirements for and Credentials of Graduation from Public Schools.
Duties of a Village Superintendent.

FRIDAY, 2.30 P. M.

What are the Greatest Needs of Our School System?
What are the Greatest Dangers Educators Have to Meet?

President Scott, in calling the council to order, said:

"School Superintendents and Friends.—Fourteen years ago a little body of school superintendents, much smaller in number than to-day, met in Syracuse. I was present then and I have been present at every meeting since that time. I have enjoyed the meetings and have been greatly helped in my work by them. I think they have been a power in the great work of educating the children of the Empire State. I welcome you all to the present meeting, and will proceed at once to the consideration of subjects upon the program.

"In order to start the consideration of the subjects placed on the program, as we may reach them in the progress of this session of the council, I have asked different members whom I know to be especially interested in them to take the lead in discussion.

"Superintendent E. W. Griffith will speak first on the topic—**Teachers' Tenure of Office, and the best Methods of securing Professional Growth of Teachers in Service.**"

He said in substance: We are all desirous of securing the best professionally trained teachers. They are comparatively a small number. The law of 1895 requires their selection in cities, but so far the villages have been left out. Perhaps this will be extended to villages in time. There are some teachers in cities employed because they have had three years' successful experience in teaching. The question is: What can be done for these, and for village teachers? If we are to have professional growth among these, the superintendent himself must be a man of growth and one who has the confidence of teachers. He must be thinking about these things and growing professionally by studying the best books. He should be deeply interested in this work and along these lines. He must be enthusiastic on this subject. If he is professionally qualified, the best means he can employ is by teachers' meetings. Not much can be accomplished unless the teachers enter on some regular course of study, such as they would take in a training school. The start would doubtless be the study of psychology. I understand that such a course has been entered on in the villages and smaller cities in this State. Next come the subjects of methods and school economy, and later the history of education. Besides teachers' meetings, I would name the accumulation of a professional library. If the superintendent is desirous of increasing the number of books in a professional library it is surprising how rapidly such a library will grow. Then the superintendent and teachers can outline courses in professional reading. A good plan is for teachers to visit schools in other cities and villages. They get a great deal of inspiration from this. The summer school is a great advantage in giving our teachers spirit and enthusiasm. Teachers who attend such schools will sometimes make astonishing growth the year after their return. I have been urging the teachers to take up the reading and study required for State certificates. This is also a great help. Much can be done in the villages and smaller cities in these directions.

Superintendent Jasper, of New York, said: This is my first meeting with you. I have been with you in spirit. I have known what has been going on in all your meetings, for I have had present some of my assistant superintendents. I am required to visit all the schools in New York at least once a year. I can do this only by assistants, of whom I have 10 or 12. As superintendent of

New York I represent one-seventh of the school population of the State. New York gives to the schools of the State \$2,000,000 annually and receives in return \$650,000. The balance we say nothing about. But I am here by authority of the board this time. I have not been absent because I did not want to meet with you. My whole life has been devoted to school work. But I feel I am simply a teacher. Circumstances have placed me in the position of superintendent of schools and there I will stay as long as I can.

In regard to the tenure of office of teachers. I feel that it should be for life. They should feel that they are to be continued. I am delighted that the city of New York is the first city in the union to pension its teachers. We had teachers who had served 35 or 40 years, and could not render as good service as younger ones. I could not recommend their removal. I would not do it. The city now pays a pension to women who have taught 30 years and to men who have taught 25. They retire on half pay, provided their salary has not been over \$1,000 a year. If the New York system was followed elsewhere, it would be well. All teachers must first pass examinations in 13 subjects, and then get a probationer's license. They must first have the scholastic ability. They are first appointed substitute teachers. If they have taught for 60 days and if the report is that her instruction and discipline are excellent, then an assistant superintendent examines her work. If she is found satisfactory, she is given a provisional license, which is for two years. After she has taught a year, then she is visited by two assistant superintendents. If she is found satisfactory, she gets a permanent license, and thereafter can be removed only on charges preferred after hearing before the committee on the subject. We have in our city teachers from all parts of the United States, and we welcome them all.

To Mr. Snow.—When teachers are absent their pay stops, and their salary goes into the pension fund which is now \$110,000. The amount is about \$5,000 to \$6,000 a month, making about \$60,000 a year. The substitute gets \$1.20 per day for each day employed.

The principal of each school is the pedagogic head of the school, and it is his duty to report inefficient teachers. No school building should contain over 1,200 pupils. In the Seventh ward it is proposed to condemn for a site a plot worth \$190,000, and on this will be built a building costing \$280,000. In most schools there are three departments. The speaker spoke in high terms of the law of '95, which requires that after January 1, '97, no teacher should be employed who has not had professional training. He thought this should be extended so as to include superintendents, assistant superintendents and principals. A superintendent ought to be able to go into a class-room and give a lesson to a teacher. He offered the following:

Whereas, The Legislature has materially advanced the cause of education in the State of New York by the enactment of chapter 1031 of the Laws of 1895, in which teachers appointed after January 1, 1897, are required to be graduates of colleges, normal schools or high schools with normal departments; and,

Whereas, Equity and the future advancement of the profession demand that at least the same qualifications shall be required of superintendents and principals; therefore, be it,

Resolved, That the committee on legislation be, and is hereby, authorized and directed to secure, if possible, at the next session of the Legislature, the extension of the provisions of said law to principals and superintendents of cities, and the incorporation of additional qualifications as follows: That a principal shall have had at least two years' experience as a class teacher, and a superintendent of a city at least four years' experience as a class teacher or two years' experience as principal of a school.

On motion of Superintendent Blodgett this was referred to the committee on legislation.

Superintendent Cole, of Albany, said: I second the spirit of the resolution. This naturally brings the thought that the same provisions should be extended to school commissioners and to principals of high schools and normal schools. The committee on legislation has always tried to further things of this kind. We have secured all bills we set out to, but have not been able to secure the repeal of some bills.

Amos M. Kellogg said the law should also include the State Superintendent.

Superintendent Griffith, of Utica, said that in his city teachers are not employed annually, but during good behavior or until dismissed by the board.

Sherman Williams, of Glens Falls, asked Mr. Skinner if any board could enter into such contract with a teacher. Superintendent Skinner said it would depend on the charter of the city. There was some question in his mind on this point.

Superintendent Cole said the teachers of Albany felt secure in their tenure of office during good behavior and as long as they did good work. The appointments are made by themselves on merit. He asked for the cities where teachers are appointed permanently, and not from year to year. The following answered aye: New York, Brooklyn, Newburgh, Niagara Falls, Albany, Syracuse, Geneva, Utica, Sing Sing, Schenectady.

Superintendent Emerson, of Buffalo, said when asked as to the security of the tenure of office of teachers, he usually replied that he found it too secure. This matter was discussed at some length, and it was found that in most cities teachers are appointed from year to year as a matter of form, to comply with the law, but that

the teachers feel secure in their positions and know they will not be dropped or left out, except for cause.

Sherman Williams moved that the committee on legislation be directed to secure such an amendment to the School Law as will permit boards of education in cities and villages to make such an engagement with teachers as will make their tenure of office permanent. On motion of Superintendent Gorton, of Yonkers, this was referred to the committee on legislation.

Edward L. Stevens moved that the committee on legislation be requested to secure an amendment to chapter 1031 extending the condition of eligibility of teachers to villages of more than 5,000 inhabitants, and employing a superintendent; referred to the committee on legislation.

Superintendent John E. Shull offered the following:

Resolved, That the chairman of this council be instructed to request of each superintendent of schools full information as to the method of appointment and tenure of office of teachers in their respective cities or villages, to tabulate such information and to report to the next meeting of this council. Adopted.

The council then passed to the second topic of the program.

WHAT WOULD BE A PROPER DISTRIBUTION OF CREDITS IN THE UNIFORM EXAMINATION QUESTIONS ?

Superintendent Blodgett said that in Syracuse the State uniform examination system had been adopted for the purpose of testing the scholarship of applicants for admission to the teachers' training classes. That he had found it a very satisfactory basis for such admission, but had noticed that in the assignment of credits to each whole question, ten credits are allowed in each case, which, to him, did not seem equitable, in that the full ten credits are thus often assigned for relatively easy and unimportant questions as well as for the more difficult and relatively important questions; and he asked if it would not be more equitable if the number of credits given to each question should be in proportion to the difficulty, length and importance of the answer thereto.

He read questions from several examination papers in illustration of his remarks.

Superintendent Sawyer, of Lansingburgh, pointed out that the basis arranged by the State Department of Public Instruction was favorable to the candidate under examination, in that it gave liberal allowance for the knowledge of those things which all competent applicants might be expected to know, and in which ignorance would be less excusable.

Mr. T. E. Finegan, examination clerk of the Department, Inspector C. N. Cobb, of the Regents' office, and Superintendent Whitney, of Ogdensburg, spoke briefly on the subject. The general

opinion held was that the basis of credits employed by the Department is practical and generally satisfactory.

WEDNESDAY EVENING SESSION

The Wednesday evening session was held in Association Hall, Y. M. C. A. building. Dr. Albert S. Bickmore gave an illustrated lecture on the National Yellowstone Park.

At the outset Mr. Bickmore spoke of the growth of the system of lectures inaugurated by himself in 1892, for the benefit of citizens and teachers in New York city, which has been extended by legislative authority to the normal schools, city schools and teachers' institutes of this State. He also stated that similar courses of lectures are to be given hereafter at Peabody Institute, Baltimore, and at Chicago University.

The lecture of the evening was descriptive of the interesting physical features and phenomena of the Yellowstone Park; and was exceedingly interesting and instructive. The descriptions of the various calcareous and other formations and of canon formation and scenery, as illustrated by 70 photographic views specially prepared for the purpose, held the closest attention of the large audience through the entire evening, and elicited many expressions of enjoyment. The views of canon scenery made by telescopic photography and scientifically colored were of surpassing beauty and interest.

After the lecture an informal reception was given in the parlors of the building. Superintendent Griffith, the school commissioners, and the teachers of the Utica schools were present and cordially welcomed the guests.

THURSDAY MORNING SESSION

President Scott called upon Superintendent Whitney, of Ogdensburg, to introduce the discussion of the topic: Advantages and Disadvantages of Vertical Writing.

Superintendent Whitney described his investigations of this system of writing in the schools of several cities where it is taught, related the steps by which it had been introduced into the schools of Ogdensburg, and gave his views upon the results of the instruction. He claimed superiority of vertical over slant writing in respect to its legibility, speed, healthfulness, etc., and showed some specimens of pupils' writing. He urged that it is easy to learn and is used generally by telegraph operators, who write with great ra-

pidity. He claimed its healthfulness on the ground that pupils do not twist neck, shoulders and spinal column out of erect or proper attitude as they generally do when writing a slant hand. Many informal questions were asked by superintendents and answered by Superintendent Whitney in relation to the points urged by him, but neither the questions nor the answers were recorded by the secretary.

Superintendent J. Irving Gorton, of Sing Sing, continued the discussion. He said that he had been experimenting for about five years with vertical writing; that it has been used in Sing Sing schools for one year, and that it is still on trial.

He thought its value depends on its—1. Ease and healthfulness of execution. 2. Legibility. 3. Speed. 4. Beauty.

Speed depends on shape of letters, as well as on other considerations. Any round hand is a slow hand. He thinks that the slope and the shapes of letters is of little importance.

He discussed briefly the following points:

Height of desk; slope of top of desk; distance of top of desk from back of seat; kinds of pens; engraved copies; position of paper, body, arms, etc. He stated that for vertical writing school desks are usually placed too far apart. He had found that a distance of nine inches between the edge of the top of the desk and the back of the seat is sufficient in primary and lower grammar grades, and that twelve inches is a sufficient distance in higher grades. He exhibited specimens of vertical writing from his own schools and from grammar school No. 85, New York city.

It was stated by Mr. Whitney, and also by Mr. Gorton, that in the schools teaching vertical writing the writing of the younger pupils is relatively better than that of the older ones.

Principal Thomas B. Stowell suggested that if members of the council would examine the specimens of vertical writing under a magnifying glass, evidence would be seen that the writing was done under a great and harmful nervous strain.

Superintendent Blodgett contended that specimens of penmanship alone are of little value in determining the results of the teaching of penmanship. Specimens are not necessarily nor ordinarily the normal or usual handwriting of the pupil. He contended for the superiority of free movement writing in current hand. He stated that careful observation of pupils coming into the schools of Syracuse from cities where vertical writing is in use has shown those pupils to be relatively slow writers. He said that children properly taught maintain as correct and healthful a position when writing a slant hand as when writing the vertical hand.

The time allotted to this discussion having expired, further consideration of it was discontinued.

The council then received the report of the committee on legislation, read by Superintendent Cole, of Albany, as follows :

October 14, 1896.

To the Council of School Superintendents of the State of New York:

Your committee on legislation respectfully reports that in accordance with the instruction of the council, a number of important amendments were made in the Compulsory Attendance Law by the Legislature last winter. The amended sections have been published by the Department of Public Instruction and are available for all who desire them, upon application. Some of the amendments were merely verbal, and of no special importance. Those that are of importance are the following:

Section three has been amended so that eighty days of attendance must accrue during the current school year.

Section four is amended so that instead of a mere statement of inability to compel attendance, the parent is obliged to present to the school authorities proof by affidavit of such inability.

Section seven is amended so as to provide for common school districts, as well as cities and union free school districts, and the town board is given the power to appoint attendance officers and to fix their compensation. Provision is made that such attendance officers shall be removable at the pleasure of the school commissioner.

Section eight is amended so as to conform to the provisions of amended section seven in relation to common school districts.

Section nine is amended so that the compulsory age should read from eight to sixteen; that the consent of parents should be given in writing; that the school authorities, and in cities and villages, the superintendent of schools, shall have power to parole committed truants, and also by the provision that outside of cities and villages the expenses attending the commitment and maintenance of truants shall be a county charge.

Your committee believes that these amendments have improved the workable character of the law, and that many general or imaginary difficulties have been overcome.

Your committee desires to acknowledge the substantial assistance in the preparation of these amendments, and the procuring of the desired legislation, given by the Department of Public Instruction. The only other matter referred to this committee by the council at its last meeting was the question of the formation of uniform charters for cities. This matter was in charge of special commissions appointed by the Governor. They devoted much time to the preparation of uniform charters during 1895, and reported to the Legislature in 1896. Your committee was consulted by the commissions and was able to make many suggestions which were adopted by the

commission; and it is believed, had the Legislature seen fit to adopt that report, the educational interests of the cities would have been quite satisfactorily arranged. It became evident, however, that the Legislature could not agree upon the reports as rendered, nor was it likely to adopt any kind of a uniform charter. Political complications in the several cities affected preventing any action on the part of the Legislature. Your committee did not feel called upon to take any active part in procuring this kind of legislation, and only participated so far as to give what information or suggestions were asked for by the State commissions.

Your committee further reports that, feeling that it represented the sentiments of the council, it appeared by representatives before the committees of the Legislature to urge the passage of the amended law introduced by Senator Malby. Your committee regrets to report that its efforts were unavailing.

Respectfully submitted,

CHAS. W. COLE,
SHERMAN WILLIAMS,
WILLIAM H. MAXWELL,
CHARLES E. GORTON,
E. W. GRIFFITH,
A. B. BLODGETT.

The report was adopted.

The committee further reported as follows:

UTICA, N. Y., October 15, 1896.

To the Council of School Superintendents of the State of New York:

Your committee on legislation to which were referred the resolutions offered by Superintendent Jasper, proposing an amendment to chapter 1031 of the Laws of 1895, specifying certain qualifications for principals and superintendents, and the resolution of Superintendent Stevens, proposing an amendment to the same law, extending all its provisions to villages, respectfully reports, after giving the subject-matter careful and deliberate consideration, in view of the fact that this law is not yet in full operation, it is the opinion of the committee that it would be unwise to attempt to procure any amendments during the next session of the Legislature, and your committee recommends that the action upon these proposed amendments be postponed until at least one year's experience has been attained under the law as it now stands.

Your committee further reports that it has had under consideration the resolution of Superintendent Williams, of Glens Falls, proposing an amendment to the General School Law, whereby localities may be permitted to make contracts with teachers for a longer period than one year, and has reached the conclusion that it would be ill-advised to attempt to procure such an amendment at present.

and requests that this matter be laid upon the table until the next annual meeting of the council.

Respectfully submitted,

CHAS. W. COLE.

SHERMAN WILLIAMS,

WILLIAM H. MAXWELL,

CHARLES E. GORTON,

E. W. GRIFFITH,

A. B. BLODGETT.

The foregoing report was approved and adopted.

Superintendent Cole, as chairman of the committee on legislation, then submitted the following:

Resolved, That the committee on legislation be and hereby is directed to prepare and submit to the Legislature of this State an act which will compel every locality in the State to furnish the public school pupils with text-books and school supplies free of cost.

The resolution was adopted.

Report of committee on courses of study for training schools or teachers' classes.

The report was presented by Superintendent Maxwell, chairman of the committee, as follows:

Your committee on courses of study for training schools or classes respectfully reports that its members were twice during the past year called into consultation by the Department of Public Instruction, and that with the advice and approval of your committee the State Superintendent issued the regulations for city training schools and classes, a copy of which has been mailed to each member of the council.

The regulations promulgated by the Department were as follows:

APPROVED COURSE OF STUDY FOR HIGH SCHOOLS AND ACADEMIES.

STATE OF NEW YORK,
DEPARTMENT OF PUBLIC INSTRUCTION,
SUPERINTENDENT'S OFFICE.

ALBANY, October 1, 1896. }

To Boards of Education:

The Legislature of 1895 enacted the following law:

CHAPTER 1031, LAWS OF 1895.

AN ACT to encourage and to promote the professional training of teachers.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. The board of education or the public school authorities of any city, except the city of New York, or of any village

employing a superintendent of schools, may establish, maintain, direct and control one or more schools or classes for the professional instruction and training of teachers in the principles of education and in the method of instruction for not less than thirty-eight weeks in each school year.

§ 2. Toward the maintenance and support of these schools and classes established pursuant to this act, or heretofore established and maintained for similar purposes, and whose requirements for admission, and whose course of studies are made with the approval of the state superintendent of public instruction, and under whose direction such classes shall be conducted, the said superintendent is hereby authorized and directed in each year to set apart, to apportion and to pay from the free school fund one dollar for each week of instruction of each pupil, provided, however, that said apportionment and payment shall not exceed in the aggregate one hundred thousand dollars in each year. Such apportionment and payment shall be made upon the report of the local superintendent of schools filed with the state superintendent of public instruction, who shall draw his warrant upon the state treasurer for the amount apportioned.

§ 3. If the total sum to be apportioned and to be paid, as provided by section two of this act, shall in any one year exceed the said sum of one hundred thousand dollars, the said state superintendent of public instruction shall apportion to each school and class its pro rata of said sum upon the basis described in section two of this act.

§ 4. After January first, eighteen hundred and ninety-seven, no person shall be employed or licensed to teach in the primary and grammar schools of any city authorized by law to employ a superintendent of schools, who has not had successful experience in teaching for at least three years, or, in lieu thereof, has not completed a three years' course in, and graduated from a high school or academy having a course of study of not less than three years, approved by the state superintendent of public instruction, or from some institution of learning of equal or higher rank, approved by the same authority, and who, subsequently to such graduation, has not graduated from a school or class for the professional training of teachers, having a course of study of not less than thirty-eight weeks, approved by the state superintendent of public instruction. Nothing in this act shall be construed to restrict any board of education of any city from requiring such additional qualifications of teachers as said board may determine; nor shall the provisions of this act preclude the board of education of any city or village from accepting the diploma of any state normal and training school of the state of New York, or a state certificate

obtained on examination, as an equivalent for the preparation in scholarship and professional training herein required.

§ 5. All acts and parts of acts inconsistent with this act are hereby repealed.

§ 6. This act shall take effect immediately.

By the provisions of section four of the foregoing act, it becomes my duty to "approve a course of study of not less than three years" to be adopted by each high school or academy in the State to enable their graduates to be licensed in or employed by any city having a superintendent of schools to teach in the public schools thereof.

I have therefore approved the following course of study and recommend its adoption in all such schools:

I. A three years' course of study in a high school, in order to receive the approval of the State Superintendent of Public Instruction, as required by chapter 1031 of the Laws of 1895, entitled "An act to encourage and promote the professional training of teachers," should include the following as a minimum requirement:

1. English, three years, or 300 recitations. The English course should include Grammar, Rhetoric, Literature and Composition. The work in literature should cover at least the ground required for admission to college by the Association of Schools and Colleges of the Middle States and Maryland.

2. Mathematics, three years, or 300 recitations. The mathematical course should include Algebra to the end of Quadratic Equations, Plane Geometry, and a review of Arithmetic.

3. A foreign language, Latin, French or German, three years, or 300 recitations. The course should include at least the grammar of the language and translation at sight of simple prose and poetry into idiomatic English.

4. History and Civics, three years, or 200 recitations. The course should include English, Greek, and Roman History, with the intensive study for at least five months of Civics and some special period of American History.

5. Drawing, three years, or 200 recitations. The course in drawing should include the principles and practice of representation drawing, construction drawing, and decoration drawing.

6. Physics and Botany, with individual laboratory work, two years, or 200 recitations. Chemistry directly applicable to physics and botany should be taught in connection with these subjects.

7. Physiology and Zoology, one year, or 100 recitations.

8. Geography, Physical and Mathematical, one year, or 100 recitations.

9. Vocal Music, three years, or 100 recitations. The course

should include vocal culture (in class,) sight-singing from the staff, and the common technical terms used in vocal music.

Four or five-year courses in high schools or courses in institutions of higher rank, should include the subjects required in the three years' course.

II. Whatever examination in scholarship may be required for a teachers' license, should be conducted before the applicant enters upon a course of professional training, and not after its close.

RULINGS

No course of study for a high school or academy will be approved for the purposes enumerated in section 4 of chapter 1031, of the Laws of 1895, that does not contain as a minimum the course above set forth. Boards of education are at liberty to add thereto in their discretion.

The attention of boards of education in the cities of the State is called to section 4, of the law above quoted. This section takes effect January 1, 1897. After that date no contract can be entered into with any person to teach in the primary or grammar schools of any city employing a superintendent, unless such person shall possess the qualifications enumerated therein.

This statute, however, is not retroactive, and will not be held to prevent the continuation in employment of such teachers in such schools as shall be upon that date under contract and actually teaching therein.

Nor will this act be considered retroactive in the case of students who are pursuing a course of study at the time of the adoption of the course above set forth, but such students must complete their studies for graduation under the newly adopted course.

All boards of education are requested to immediately notify this Department of the adoption by them of the foregoing course of study.

CHARLES R. SKINNER,
State Superintendent.

REGULATIONS FOR TEACHERS' TRAINING SCHOOLS AND CLASSES IN CITIES

STATE OF NEW YORK

DEPARTMENT OF PUBLIC INSTRUCTION,
SUPERINTENDENT'S OFFICE,

ALBANY, N. Y., April 6, 1896.

The following regulations for the organization and government of teachers' training schools and classes in cities, under the provisions of chapter 1031, Laws of 1895, are hereby prescribed.

CHARLES R. SKINNER,
State Superintendent.

City Training Classes

The following regulations governing teachers' training schools and classes have been prescribed in accordance with chapter 1031 of the Laws of 1895, entitled "An act to encourage and to promote the professional training of teachers."

Attention is called to the regulation adopted, to the course of study arranged, and to the provisions of law relating to city training classes.

1. Appointments

"The board of education or the public school authorities of any city, except the city of New York, or of any village employing a superintendent of schools, may establish, maintain, direct and control one or more schools or classes for the professional instruction and training of teachers in the principles of education and in the method of instruction for not less than 38 weeks in each school year."

2. Qualifications for Admission

1. Candidates must be at least 17 years of age at the time of entrance.

2. They must subscribe, in good faith, to the following declaration: "We, the subscribers, hereby declare that our object in asking admission to the training school or class is to prepare ourselves for teaching; and that it is our purpose to engage in teaching in the public schools of the State of New York, at the completion of such preparation."

3. Before admission they must hold as a minimum qualification a diploma of graduation from a high school or an academy having a course of study approved by the State Superintendent of Public Instruction, or a diploma from an institution of equal or higher rank approved by the same authority, as provided under the law. Additional qualifications may be prescribed by boards of education.

4. Graduates from institutions in the State of New York, applying for admission to these schools or classes will be required to file with the local superintendent of schools a certificate from the principal teacher of the high school or other institution from which they were graduated, setting forth the fact of graduation on the completion of the required course duly approved by the State Superintendent of Public Instruction. The Department will publish from time to time a list of the institutions whose course of study has been approved.

5. Candidates from other States, applying for admission, in order to qualify for entrance to any training class, shall present credentials of graduation from a high school or an institution of equal or higher rank having a course of study at least equivalent to the high school course of study prescribed as a basis for entrance to

training classes in this State. Such credentials shall be forwarded to the State Superintendent for approval.

3. Organization

1. The school year is divided into two terms, but no school year shall consist of more than 40 weeks.

2. The compensation allowed institutions for the instruction will be at the rate of \$1 for each week's instruction of each member.

3. At least four hours every school day must be occupied in study or in instruction on the topics laid down in the course of study, or in the observation of model teaching, or in practice work.

4. Two blank forms for notice of organization will be furnished to each institution. These blanks must be properly filled, and one be forwarded to the Department at the end of the third week after the organization of the class. The other must be filed by the superintendent of schools for inspection by the proper school officers.

4. Rulings and Requirements

1. No person shall be admitted to the class after the report of organization has been forwarded to the Department.

2. No allowance can be made for any pupil not shown by reports to have been eligible to enter the class.

3. No allowance will be made for any pupil who leaves the class before the expiration of the year, except by permission of the State Superintendent, and no such permission will be granted during the year, simply in order that the candidate may teach.

4. When the class is organized, the qualification for admission of each candidate shall be entered in the place designated for such entry in the "Teachers' Training Class Daily Register," and the credentials thereof filed for inspection in the office of the superintendent of schools.

5. A "Teachers' Training Class Daily Register" will be furnished for each class, and the daily attendance of each member, upon each recitation, recorded therein.

5. Course of Study

This course is designed as a minimum to meet the requirements of chapter 1031 of the Laws of 1895.

The subjects designated therein shall be completed in not less than 450 hours.

The number of hours to be devoted to each subject shall be determined by the local superintendent of schools. The number of hours placed opposite the several subjects is to be regarded as suggestive only, and as indicative of their relative value.

*Minimum Course of Study in Teachers' Training Schools or Classes
in Cities*

I

1. Psychology and Principles of Education.....	90 hours
2. History of Education	30 hours
3. School Management	20 hours
4. Methods in Mathematics	40 hours
5. Methods in Nature Study: Plants, Animals, Minerals, and Physiology and Hygiene.....	40 hours
6. Methods in Reading, Spelling and Phonics	30 hours
7. Methods in Language, Composition and Grammar.	40 hours
8. Methods in Geography.....	30 hours
9. Methods in Form Study and Drawing	40 hours
10. History, Civics and School Law	30 hours
11. Physical Culture, with Methods	40 hours
12. Methods in Music	20 hours

II

At least 50 hours shall be spent by each member of the training class in practice teaching.

6. Examinations

1. The Department of Public Instruction will, on application of the local superintendent of schools, furnish special examinations in the several subjects prescribed in the "Course of Study," in order that the members of the training school or class may become eligible to appointment to schools in this State other than those of their own city.

2. These examinations shall begin on the third Thursday of January, and on the second Wednesday of June.

3. It is required that the name of every member electing to take the examination shall appear in the report of the examination at the close of the term. The Department reserves the right of refusing payment for the instruction of members not reaching a fair standing in the subjects embraced in the course of study.

4. Members will be exempt from re-examination in those subjects in which they attained a standing of at least 75 per cent. at the next preceding examination ; but members shall not be admitted to the examination in any subject which they have not regularly pursued in class.

5. Inasmuch as the examination at the close of each term has been appointed with special reference to the convenience of these classes, it is required that the members shall enter no other uniform examination during the term of study.

7. Certificates

1. Members of training schools or classes who attain a standing of 75 per cent. in the several subjects in which they are examined will receive a training class certificate if the city superintendent of schools shall state that he deems them worthy to receive such certificates.

2. Training class certificates are valid for three years, and at the end of such time of successful teaching are renewable the same as are first grade certificates, under the State uniform examinations.

Your committee desires to acknowledge the kindness and courtesy with which they were treated by the Department of Public Instruction.

WILLIAM H. MAXWELL,
CHARLES W. COLE,
GEORGE GRIFFITH,
A. B. BLODGETT,
BARNEY WHITNEY.

The report of the committee was approved and adopted.

The committee on examination and certification of teachers of special subjects next reported as follows:

Your committee on licensing special teachers would report:

That the State Department has met the situation which called for the discussion of a year ago and led to the appointment of this committee in a manner which meets the approval of the committee as being at least a move in the right direction and all that can be reasonably asked for at the present time.

F. J. DIAMOND,
Chairman of Committee.

The report was received and adopted.

Superintendent Blodgett was permitted to read a communication from the president of the Association of Grammar School Principals, requesting the co-operation of superintendents in extending information concerning the meeting of the association in December.

President Scott called upon Supt. Sherman Williams to open the discussion of the next topic.

NECESSITY OF STATE SCHOOLS FOR TRUANTS

He favored the establishment of several small schools, located in the country, in different parts of the State, each school to have a more or less extensive farm for cultivation to afford a home, instruction, training and farm work for about fifty boys.

Supt. Whitney thought that while quite a number of such schools may really be needed only a few could be secured.

Supt. Maxwell explained that his attitude toward the establishment of State truant schools had been misunderstood. He had felt that such a provision included in the Compulsory Education Act when on passage in the Legislature would have jeopardized its enactment. He had been consistently opposed to the establishment of State schools for truants that should be under a local control and management. The opening of a truant school and knowledge on the part of the public that truant children will be systematically picked up and placed in confinement will largely diminish the number of actual truants. He thought that the objection to confinement of more than 50 boys in a single school could, under proper organization and management, be overcome. He referred to the exhaustive report upon truant schools read by Superintendent Seaver at the meeting of the National Department of Superintendence at Richmond some three years ago. He referred to the work of the George Junior Republic as presenting to his mind a development which must certainly influence the organization of truant schools in the future. He favored a State truant school. Would begin with one. Would not ask for more at first. He reported that the Brooklyn truant school had last year had 82 inmates at one time. All of the boys who have been there are doing very well. Only three out of 146 boys who have been there will be sent there when the school opens, about October 28.

Superintendent Norris asked for information concerning the Burnham Farm School, at Canaan, Columbia county.

Superintendent Cole replied that it is an institution for the reformation of bad boys. It is supported by private beneficence, and has accommodations for 60. It is always full, and can not now receive committed truants. It is conducted on the small family plan, not more than 25 in a family. If its facilities should be increased, the managers would take care of truants.

Superintendent Blodgett described the Syracuse truant school, saying that the building and facilities were not such as they would have liked, but that, for a comparatively small outlay, they had cared for the worst cases of truancy in the city and had thereby done much good.

He said that the unfortunate conditions and circumstances of the habitual truants so cared for had impressed him deeply. Such boys need sympathy, pity and help. He mentioned incidents showing the gratitude and responsiveness of such boys to efforts made to improve their condition. The school occupies a dwelling-house, small yard and barn. It has a female teacher — a woman of good sense, benevolent spirit and experience in teaching; a man and his wife, who act as custodian and matron of the home. Food and clothing are both provided to the inmates. Simple forms of manual training are employed. Books and reading matter help to

fill up the evening hours. Instruction is individual. The teacher remains six hours each day, and receives \$100 more than a regular grade teacher per year. The custodian and his wife are paid \$60 per month. Meals of pupils cost \$1.68 per week. Parents may visit their children at the school on Saturday afternoon only.

State Attendance Officer A. M. Wright asked whether, in Syracuse, the expense has been justified by the benefit it has brought to others?

Mr. Blodgett replied: Certainly, we can not give this up.

Superintendent Maxwell said that in Brooklyn they had found it advisable to restrict the visits of parents to pupils in the truant school to one a month. Daily routine in Brooklyn truant school is substantially as follows:

Boys rise at 6 a. m.; breakfast is over at 8 a. m.; military drill, 8 to 9.30 a. m.; school hours, 9.30 to 12.30; dinner recess, 12.30 to 2 p. m.; Sloyd school, music and drawing until 5 p. m.; supper at 6 p. m.; games, etc., after supper. The military discipline is very beneficial. They find their greatest problem to be how to best occupy the hours between supper and bedtime. Some boys are willing to read books. Sewing and embroidery have also been quite successfully utilized. The three things found to be most useful in securing attention to be: First, and chiefly, military drill; second, Sloyd; and third, drawing.

Principal Stowell: "Is not the key to the whole the development of motor centres?"

Superintendent Maxwell: "I suppose it is."

Attendance Officer A. M. Wright read the following letter, and asked Superintendent Noyes to describe the organization and working of the Rochester truant school:

ROCHESTER, N. Y., *September 9, 1896.*

HON. CHARLES R. SKINNER, *State Superintendent of Public Instruction:*

Dear sir.—In response to your inquiry of the 8th instant, I take pleasure in submitting the inclosed statement.

Respecting the value of a school for the detention and instruction of truants in this and every city there is no question. The influence of our local truant school is apparent here and in surrounding counties. I estimate an increase of about a thousand pupils in our city schools as directly due to the maintenance of that school during the past eighteen months. Its value has reached beyond the mere question of increased attendance.

It aids in the orderly operation of our schools and their discipline.

It stimulates a wholesome respect for authority among all classes of persons.

The inmates have imbibed many valuable lessons, not the least of which are obedience, self-control, self-respect and love of study.

A few well-equipped truant schools receiving commitments from surrounding districts would be of lasting value to the future welfare of the State.

Yours respectfully,

(Signed)

MILTON NOYES,
Superintendent.

Superintendent Noyes said: We have, in Rochester, five truant officers. Our truant school is very similar to that described by Superintendent Blodgett. We had an unused public school building available. We have had from 25 to 30 pupils there at the same time. The school has a principal and a manual training teacher. It has barred windows and a high fence. We have a night watchman and also a house physician, when needed. The boys do their own dormitory work, and take exercise before 7 a. m., at which hour they have breakfast.

No pupil is committed who has been arrested for causes other than truancy. None are committed for incorrigible behavior at other schools. The boys committed to the truant school seem to have as much skill as other boys in the use of tools, jackknife, etc.

State Superintendent Skinner said that the Department of Public Instruction will stand for a humane administration of the Compulsory Law. He favored a State truant school, thoroughly organized and equipped, on the broadest and most humane plan possible: a State institution, with the most high-minded teachers that can be found. The best means that the State can supply to rescue and train the unfortunate truant is a good truant school equipped to bring its pupils into the brightness of life. All the influence I have shall be exerted to create this monument of the State.

Superintendent Maxwell presented the following, and moved its adoption:

Resolved, That the committee on legislation be authorized and directed to take such measures as they may deem wise, in conjunction with the State Department of Public Instruction, to secure the establishment and maintenance by the State of one or more truant schools, in which habitual truants may be confined and educated in accordance with the Compulsory Education Law.

President Scott asked to state from the chair that the topic under discussion had been regarded by him as one of the most important upon the program. He had, in former years, recommended in his report to the State Superintendent the establishment of at least three schools in different parts of the State; and that he felt much pleased to realize that the matter of the establishment of such schools had at this session assumed tangible form for presentation

for legislative action. He earnestly hoped that success would crown the efforts of this council.

The resolution offered by Superintendent Maxwell was then unanimously adopted.

THURSDAY AFTERNOON SESSION

Superintendent George Griffith was called upon to open the discussion on the topic.

CHILD STUDY

He said as follows:

Like many of you I became interested a year or two since in the subject of Child Study by reading of the work in various places and by hearing the discussion in the Child Study section of the N. E. A.

Of the importance of the movement I need not speak. Whether we believe it should occupy the supreme place to which it is raised by Dr. Stanley Hall or not, we all must recognize its great value to the cause of education. I simply add my bit of testimony to the great mass when I say the work we have done in this department in Utica the past year has very greatly helped us in many ways. As briefly as possible I will tell you of the work.

Nearly a year ago we began the work. One of the two classes of teachers formed for professional study took the line of Child Study. From various sources we received help, but most of all from Dr. Hall, of Worcester; Prof. Krohn, of Champaign, Ill.; Dr. McMurray and Prof. O'Shea, of Buffalo. Our first step was to make a systematic test of the sight and hearing of all the children in the public schools of the city. For the purpose of testing the sight, Snellen's test cards were used. The usual form of record was adopted, viz.: The child was placed twenty feet from the card and he was tested to discover the smallest size of type on the card that he could readily see, with both eyes at once, and with each eye separately. Over this line of type is a figure which gives the number of feet from which this type should be seen by the normal eye. This number becomes the denominator and 20, the distance at which he stood, becomes the numerator of a fraction, which is the pupil's record in sight.

To test the hearing, a lady's ordinary watch was placed upon a table, and the pupil caused to approach the watch until he could just hear the ticking. The distance in inches from the watch to his ear is his record. Sheets specially ruled were furnished for recording these tests. Columns were provided for names, age in years and months, grade of the pupils, and also for the record of the tests of both eyes, right eye, left eye, astigmatism, headache, color

blindness, both ears, right ear, left ear, and a special column. At teachers' meetings full directions were given for making and reporting the tests.

1. In the case of children whose record for one or both eyes is 20-60 or lower, or 20-10 or higher, or who show well-marked astigmatism, please see that the parents are notified of the condition and advised to consult a physician at once. (Use blank I.)

2. In the case of children whose record for one or both ears is lower than one-third the average for the grade or department, see that the same notice and advice is given the parent. (Use blank I.)

3. In the case of children whose record for one or both eyes is 20-40, or between 20-40 and 20-60, and those whose record for one or both ears is one-third to one-half the average for the grade or department, send or give notice to the parent of what you find. Unless you are confident of the reasonable accuracy of your recorded tests of these cases, such pupils may be rested, and this notice given only when the new test verifies the record. (Use blank II.)

4. I send you some blanks that may be used in giving these notices to parents; but so far as possible it is preferred that the parent be seen by some teacher who will explain matters to the parent and thus save any misunderstanding. Be extremely careful to say nothing that can be interpreted as anything stronger than advice for the child's good.

5. At once make such a reseating of pupils in study-room and recitation-rooms as shall bring those who are near sighted or hard of hearing into the seats most favorable for seeing and hearing. Also give special advice in regard to care of eyes to those with very defective vision.

6. On all transfers hereafter given children under (1), (2) and (3) above, enter the record of your eye and ear tests for the information of the teacher to whom they may come.

7. Preserve these record sheets subject to inspection or call from the superintendent at any time in the future.

Blank I, referred to above, is as follows:

UTICA, N. Y., ——— —, 189—.

Mr. ——— —:

We have been making a test of the sight and hearing of all the children in the public schools. While we make no pretence that this has been done with the accuracy of a trained physician, we believe that sufficient care has been taken in the tests to warrant us in notifying the parents of those children who seem to have serious defects in either sight or hearing. We shall do all we can for such by giving them the most favorable seats in the school and by cautioning them as to the use and care of eyes or ears.

Counting both eye and ear tests, there were 1,202 different pupils extremely defective, and 965 who required blank II, making a total of 2,167, or 35.6 per cent. of the entire 6,113 examined.

We next took up a more detailed study of individuals, using two forms of blanks. One of these was to be used for children first entering school, and one for those in higher grades. This work we are still carrying on.

I have found many good results to come from our one year's experience in Child Study. I name a few.

The test of eye and ear revealed many very sad and critical cases which were remediable because discovered at this stage of development. Many parents could not strongly enough express their gratitude to the teachers. Hundreds of children were led to consult specialists, and were successfully treated. It led to a complete reseating of the children in the schools, so that those defective in sight or hearing were given seats where they could most easily see and hear. Many cases of what had been considered dullness or willful inattention on the part of pupils were shown to be due to inability to see or hear. All of the work has increased greatly the sympathy of teachers for pupils, and has led to that study of individuals which is so essential to the best teaching.

Supt. Tuthill.—It seems to be a plain inference that the physical defects referred to must be remedied by mechanical means. I wonder whether nature may not have provided some natural corrective means by which to correct its own defects. May there not be danger of doing harm by acting too promptly upon the assumption that a defect requires correction by physical means?

Supt. Griffith.—The inference would not be justified. Our investigation sought to do nothing more than to reveal facts which we could bear in mind in our instruction in the school-room, and to give opportunity in extreme cases for bringing the case to the attention of the specialist, who is supposed to know what should be done.

Mr. Stewart.—May not these defects be in large measure due to bad or injurious school-room lighting?

Supt. Griffith.—Probably, to some extent. To what extent it would be difficult to know. Not all cases of defective eyesight would be corrected by mechanical means. I remember that in one case of imperfect sight the specialist merely prescribed more substantial and nourishing food for the child. When sufficiently and suitably fed the eyesight of the child became normal.

Someone inquired whether parents sometimes decline to take the child to the specialist for treatment on account of the expense of so doing.

Supt. Griffith.—Yes, sometimes, but in some needy cases the

specialist and others have given the treatment or procured glasses for the child.

Dr. Schauffler thought that physical examination and glasses, when needed, should be supplied at public expense, as well as other things needed for the pupils' school use.

Supt. Whitney said that a careful test of eyesight was made in many schools of the State recently, and a very small percentage of abnormal eyesight was found at the beginning of the course. From the first to the ninth year the percentage was large.

The question is, What has caused it? Is it penmanship or over-study? Teachers should pay as much attention to the quality of the light as they do to the text-books.

Supt. Griffith, of Utica, presented the following, which was adopted:

Resolved, That in the opinion of this council the time has come for the organization upon a broad and reliable basis of a society or center for child study in New York.

Resolved, That the State Superintendent of Public Instruction be requested to appoint a committee representing such educational bodies of the State as, in his judgment, should be represented, to proceed with the organization of a New York society for child study.

HOW CAN SUPERINTENDENCE BE MADE MORE EFFECTIVE?

This discourse was opened by Superintendent Jasper of New York city. He said: "I have been a school superintendent in the metropolis for 17 years. To have our work effective we must have the assistance of the teachers. In this State we have 35,000 teachers. The pay of these teachers averages about \$400 — less than is paid a hod-carrier. I am pleased to say that in New York city teachers are paid \$700 on an average. In order to get good teachers they must be paid good living salaries. Teachers who are not well fed and well clad can not do good work. A principal of a school should hold the position for life, as should also the teacher and the superintendent. How many superintendents in this State have been dropped because of some political influence, and poor substitutes put in their places! I say it is wrong in principle to do these things. Politics and education should be completely divorced. If I had my say our State superintendent would have his position for life. You know very well that the head of our educational system changes in this State with the coming in of a new political party. This is radically wrong. No board of education should interfere with the position of a superintendent. If he does not do right give him a trial, but do not remove him without some cause or reason. The business part of our schools should be looked after by boards of education, and the superintendent should take care of the educational

work. I frequently find superintendents doing clerical work and furnishing supplies for the board. He should have and be provided with an assistant to do this work. The salaries of the superintendents of this State are not sufficient. Many teachers use their positions as a makeshift for something else. I contend that no principal can attend to his school duties and have another business to look after. I say pay these people living salaries and pay them well. Then they will not be compelled to adopt these side issues in order to make a respectable livelihood. The business part should be divided entirely from the school. In order to make the work of the schools more effective make the tenure of office for life, and the salary large enough to keep them in their profession."

Superintendent Emerson of Buffalo, dissented from Superintendent Jasper in regard to his advocacy of life tenure. The great need, he said, was not to get men who would keep teachers in office, but who would turn poor ones out. In this city, said Mr. Emerson, you have had an illustration. You wanted to get a superintendent with sand enough to remove half a dozen or so of incompetent teachers, and you got such a superintendent. Do not make it necessary to go into court to remove a teacher who is inefficient. Inefficiency is an intangible thing. You may know it exists, but you will have hard work to prove it to a judge or jury.

Superintendent Jasper disclaimed any desire to shield the incompetent, but thought the good teachers and superintendents should be properly protected.

Superintendent Kennedy spoke of the necessity of the superintendent fitting himself for the exercise of true leadership. At present I do not see that we have made any provision for the continuity and continuance of the educated supervisor.

Superintendent Whitney thought superintendents sometimes made great mistakes in dealing too much themselves with devices and details which should be left to the teacher.

Superintendent of Public Instruction Skinner said the question of good superintendents was second only to that of good teachers. What was wanted was not a superintendence that made the superintendent go to the Board of Education to report about a leak in the roof or some such matter. That kind of superintendence, he said, amounts to nothing. We shall never have the right kind until the superintendents are relieved of the vast amount of clerical work they now have to do. The superintendent should be a strong, brave, independent man. No good can come of the perpetual employment of a poor teacher or a poor superintendent. I believe that the boards of education should attend with the greatest care to the selection of the superintendent and then leave the superintending to him. Give him absolute power to engage teachers. Let the board do all

the legislative work and the superintendent do the executive work. In regard to politics and the office of school superintendents, I suppose politics and education can never be completely divorced. The only way is to get more education into politics. When you have made every American citizen an educated politician, then it will revert back and make your school boards better. (Applause.) I believe that if there is any way to secure tenure of office to the superintendent, of relieving him from work that any ordinary clerk can do, giving him more leisure for study, more time for teachers' meetings, great good will be accomplished by putting it into practice.

Supt. Diamond.—“I would like to see this discussion take the direction of expressions from superintendents of the means by which they seek to impress themselves upon, and to extend their influence with, their teachers.”

Supt. Young.—“I feel like saying just this and then sitting down. It seems to me that if, in this Council of the Superintendents of the State, only two or three men have any ideas, suggestions or questions upon this practical and important matter, we are an unworthy lot of men. If we are doing anything, or are trying to do anything, we ought to make it known or to ask some questions. Twice has the subject ‘Duties of a Village Superintendent’ been upon the program, and but little has been said about such duties.”

Director Downing.—What are you doing? (Applause.)

Superintendent Young said that in New Rochelle they were endeavoring to improve school service by careful selection and the encouragement of personal ability and personality in teachers.

Superintendent Prentice thought that the greater part of the discussion had been wide of the mark. That we have no business discussing provisions for keeping ourselves in our positions, he agreed with Superintendent Emerson. It is the teacher's duty, and the superintendent's duty as well, to keep qualified for his position. The superintendent should know all the ins and outs of his work thoroughly. A board of education is remiss in its duty in retaining a superintendent who is not as good as anybody else whom they can employ.

Superintendent Williams disagreed in part with Superintendent Prentice. He thought that some teachers suffer from over supervision and some from lack of supervision. No superintendent does or can know all of his work from top to bottom. When a superintendent has brought his teaching forces into such relation that they are working together, and not at cross purposes, if he has a capable teacher he should let her exercise her opportunity to teach without interference. The best superintendent will, if he be honest, be conscious that he has teachers that know more than he does.

The council then passed to the consideration of the topic:

**SHOULD THE STATE PAY TEACHERS' QUOTAS TO TEACHERS
NOT LICENSED BY SOME FORM OF STATE AUTHORITY?**

Superintendent Emerson spoke first. He took the position that recognition only of some form of State authority as contrasted with, and exclusive of, legally-constituted local authority in the licensing of teachers might be an injustice and an injury to the educational interests of a community. He said that legally-constituted local examining and licensing authority frequently represented the result of some long earnest struggle for the accomplishment of right ends. That to deprive it of its legal authority and power would, in effect, be to belittle and to rank as of no importance the struggle by which enlightened public sentiment had demanded and established safeguards against incompetence and unworthiness in teachers.

He showed how this might be true in the city of Buffalo, in which city there now exists a thoroughly competent and impartial examining board. Only such as shall have passed the stated examination conducted by said board are eligible to employment as teachers. To say that this body, whose legal establishment had been obtained as the result of a long and earnest struggle for a competent and disinterested examining body, should not longer have authority to examine and license candidates for employment, might fairly be considered as impeaching the ability and honesty of the local examining board. The abrupt adoption of a plan requiring licensure by an additional State authority would discredit the certificate of the local examining board. No such plan should be hastily undertaken.

Superintendent J. I. Gorton asked whether teachers in corporate schools in New York city are required to have some definite form of license.

Superintendent Jasper answered that they are. He briefly explained the nature and management of the corporate schools referred to, which are in a large sense mission schools cared for mainly by religious bodies in the city, but sustaining a relation to, and receiving some assistance from, the public school system of the city. Such schools as have adopted and conformed to the New York course of study draw \$9 per pupil from city school funds, but they draw no teacher's quotas.

Superintendent Hunt, of Corning, thought that such a step would meet with much opposition from communities throughout the State where competent examining authority already exists; that no legislation looking to such a step should be sought hastily. The benefit of such action is at present not well understood, if indeed, the effect is not questionable. He urged that no such step be taken this year, at least.

Superintendent Shull said the situation in Long Island City was such as not to be calculated to guarantee the proper proficiency of candidates through adequate examination.

Superintendent Jasper.—That will be changed for the better when your city becomes a part of "Greater New York."

Superintendent Whitney thought that teachers who had proved their ability by years of good work ought not to be compelled to take a literary examination. They might be unable to pass a literary examination, but such an examination was no test of the spirit or enthusiasm of a teacher. Many of the most colossal failures were college graduates with a normal school training. He thought that this exemption should extend only to city school teachers.

Superintendent Babcock.—"If it is just that city teachers be excused, why would it not be just that teachers outside of cities be excused likewise?"

Superintendent Whitney.—Because in cities teachers are kept under continual training, instruction and supervision. Such is not the case in small villages and rural districts. The country affords no continued incentive to progress.

Director Downing.—I think that on a fair and full statement of the situation both my friends from Buffalo and Ogdensburg would vote in the affirmative of this question. In the first case no ex post facto law can be passed. The rulings of the Department are neither retroactive nor ex post facto. If such a step should be taken nothing would be done that would displace competent teachers, already holding some other legal form of license. There ought to be some authority to say to any city that it must employ competent teachers. I believe the sentiment of this council is in line with the affirmative of this question.

Mr. Downing then offered a resolution that "it is the sense of the council that no teachers' quota should be paid by the State for teachers unless licensed by some form of State authority; but that such regulation should be operative only for new appointees and work no injustice to teachers already in service, nor forfeiture of State apportionment for their continued employment.

Superintendent Ryan moved that the matter be referred to Messrs. Downing, Emerson and Whitney, as a special committee, which should consider and make report at 11.30 o'clock on Friday morning.

Carried.

On motion, the election of officers and selection of place of holding the next meeting was deferred until 11 o'clock Friday morning.

THURSDAY EVENING SESSION

The superintendents were slow in assembling in the evening. In the rear of the room were 100 or more ladies, some of whom were teachers and some of whom were not, but all interested in the first topic for discussion, "The Kindergarten; Its Advantages and Requirements."

President Scott said he was very glad to see so many ladies present. He assumed they were all teachers. The announcement of the topic for discussion was received with feminine applause. Mr. Scott said they would have a sort of round table talk. He first called on Superintendent Griffith of Utica, who, though unprepared, responded most interestingly to the call. He said in part:

One of the great advantages of the kindergarten, in my opinion, is its influence on the schools above it. The influence of the kindergarten in the way of developing the child's individuality in the way of teaching him self-control, of governing him by love, rather than by force, reaches up into the grades above it, and can scarcely be over-estimated.. In the kindergarten we tell the child to do, instead of dinging "don't" in his ears. Many of our teachers study kindergarten simply to strengthen their grasp on the student. About the merit of the kindergarten there can be little dispute. How it develops the faculties, and makes the advancement of children in the primary grades much more rapid than that of those who have not enjoyed its advantages is recognized everywhere.

The benefit to the moral nature of the child is almost incalculable. This benefit is confined not alone to the children of the lower classes. It is just as much a benefit to the off-spring of the best families. The pampered child, who is allowed to rule at home is taught at the kindergarten to do for others, and receives an education in unselfishness that is invaluable. On the other hand, the influence on those who come from homes of vice and poverty is almost beyond belief. I recall one instance which illustrates the change wrought by the school. In one of our kindergartens, there was a little boy called "Jerry" from that part of our city which goes by the name of Italy. When he first came to the kindergarten he was filthy, perverse, sullen and apparently bad. He was so dirty that the teacher used to take him to the sink and wash him. Jerry used to go home with a clean face and soon he learned to like the kindergarten. When Easter came his teacher thought she would make him a present, so she put a white hyacinth in his seat. When Jerry came and saw the flower he was almost beside himself with admiration. "Oh!" he said, "so pretty! So pretty! Why, it hasn't got a speck of dirt on it." In a few months an ideal of beauty had arisen in that child's mind, and he had grown to love that which was clean and beautiful.

Now, as to the requirements. In the first place it does not pay

to put into the kindergarten as teachers anything but first class kindergartners. We require high school graduates of a full course, then two years in a special training school. We will accept no less. Superintendent Griffiths remarks were followed with liberal applause.

Dr. Smith Baker, President of the Utica Kindergarten Association, was next introduced. He asked his hearers to consider the child in the condition he was in when first he went forth from his mother's arms. At that point the mother's influence must more or less decrease. The child would unconsciously imitate others. At that time the child needs some protecting, care-taking influence. Now, few mothers have a great deal of time to give to the child. The demands of our complicated social arrangements are too great. The child must largely take care of itself, from two or three to six or seven years of age, and according to the perversity of human nature, it will largely imitate the worst. We aim to give the child something to take the place of the mother's care. A noted educator has said that the child learns more before it is six years of age than any university can teach him afterward. I do not believe we should let the child get so great a start in the wrong way during the mushroom period of his existence. I do not know of many children, rich or poor, high or low, who do not need the kindergarten, and if anything the children of those who have most to do with, need the kindergarten most.

Now, as to the requirements. Let me first say to you superintendents, do not attempt to establish the kindergarten until you yourselves understand it. It is a system of pedagogy, philosophy, physiology, psychology and all the other ologies. I notice that much of the opposition came from those who do not understand the system. The first requirement then, is a right ideal.

The next requisite is a good teacher. Let me here introduce my fad. I believe that the kindergarten teacher should be, or have been, a mother. I do not know that it is practicable at this stage to insist upon this, but I do believe that, other things being equal, the mother has an advantage. But do not for a moment suppose that any bright young mother, without technical training, can open a kindergarten. Many failures come from making this mistake.

The third requisite is adequate equipment. I will not dwell upon this, though it is important, but still more important is adequate supervision. Introduce the woman supervisor of the kindergarten. You gentlemen might just as well try to supervise the nursery at home. But back of all you must have public sentiment. This, if it does not exist, you must create. Good kindergartners will go a long way to create such a sentiment. You must have public sentiment to back up your kindergarten, for good kindergartners cost money. If I were forced to cut down anywhere, it

would be in the expenditures for children over rather than under 15. Get a child started right and he will continue right, let him start wrong and it is doubtful if all the colleges in the world can make him right. I read the other day that of the 9,000 children of San Francisco kindergartens whose records have been kept, not one has yet been arrested.

Superintendents Whitney of Ogdensburg and Sawyer of Lansingburgh took part in the discussion that followed. The latter told of a teacher who had no previous knowledge of the subject, who made a guess as to which of the children under her had been in the kindergarten. They had then been out two and a half years. She subsequently investigated, and found she had not made a mistake in a single instance. Asked how she could tell, she replied: "Oh, in a dozen different ways. The kindergarten children, for one thing, are quicker in their mental actions. They do their work with less apparent effort. They have more method. They listen better; they understand better."

Professor Sawyer raised the point whether beginning a child's education so young did not detract from his vitality and shorten his life. But he was unable to answer the question himself, and said that, in the meantime, he was in favor of the kindergarten.

The council then passed to consideration of the topic-reading, primary and secondary.

Superintendent Charles M. Davis was introduced as the first speaker. He took the ground that in schools generally the process by which children are taught to read is unduly tedious, unscientific and unfruitful. He claimed that in schools generally, the reading and the ability of pupils to read is of inferior quality, and that there is considerable just ground for the criticism of illiteracy among school pupils, as made by the public. He said:

"The reading of pupils is very poor, and a child is usually no more proficient in other studies than he is in reading. Up to the age of 12 years his knowledge in other subjects is not superior to his knowledge of reading. I say that the reading in our schools shows that there is a great deal of illiteracy. We must expect to be measured by a fair standard. I think we have acted upon wrong principle in the efforts made in teaching reading, and in the endeavor to stimulate a love of reading among children. The schools and the teachers are largely to blame. We have not gone to the root of the matter. By these statements some teachers may be thrown into a state of mental rebellion. They have become accustomed to think their own schools pretty good. We have no right to rest until our work in reading equals what can be done anywhere under similar conditions. I repeat, our pupils do not read well; and they have not stored their minds with the thoughts of standard authors. A practice yielding such poor results should be discontinued. Few teachers understand how to teach primary reading.

Little is accomplished in the first year's work. Teachers dread and pupils dislike the exercise. I have visited many schools to find out what is being done during the first and second years, and have found only three or four schools doing superior work. These deficiencies are not imaginary. They are generally true. In comparison with what is usually done I will say that I know of one school in which the teacher started sixty-two children of five years old, who read ten volumes fluently the first year, and eighteen volumes the second year, as intelligently as any of the superintendents present would do. The way to give children advancement and love for and appreciation of good reading is to do it when they are young."

Superintendent Farrell.—Superintendent Davis mentioned a class of sixty-two that read ten volumes in the first year, eighteen the second year, and so on. We don't find it possible to keep a class of children together three years. I have known one class taught in a western city that made similar advancement in reading during the first year, but their whole time was given to it.

Superintendent Davis.—I was slightly misunderstood. I did not mean to say that the entire sixty-two pupils continued together in school three years. There were sixty-two at the start, some, of course, dropped out, but the class, as a whole, kept together and did the same work. They made similar progress in other things: Numbers, spelling, elementary geography, paper folding and cutting, embroidery, sewing, etc.

Superintendents J. I. Gorton and I. E. Young insisted that Superintendent Davis describe the method by which these pupils were taught to read.

Superintendent Davis, after some hesitation, replied that the method is called the thought-method; and described some of its elementary features. It was pointed out that the method referred to is in reality a development of the method as "Farnham's Sentence Method of Teaching Elementary Reading."

Superintendent Noyes asked if the phenomenal reading of the pupils reported as having been done by them in the first few days of their work was not paralleled by the answer of the pupils to the question, name five animals of the polar regions, and who said, "one seal and four polar bears."

Superintendent Davis admitted that very likely, at first, the pupils' work was a mere matter of arbitrary verbal memory; but claimed that it at least soon ceased to become so, and that the reading was both fluent and intellectual.

Superintendent Whitney contended that no one method is sufficient to give such results. That it was the teacher, rather than the method.

The council then adjourned until Friday morning.

The report of the special committee on licensing of teachers had been under special order of business the opening of this session.

It was presented by Mr. Downing, who moved the adoption of the report, which was as follows:

Resolved, That the State should not pay teachers' quotas for teachers not licensed under some form of State authority; but no statute should be enacted which would displace efficient teachers employed at the time of its enactment, nor should such statute work a forfeiture of teachers' quotas for such teachers.

A. S. DOWNING.

HENRY P. EMERSON.

BARNEY WHITNEY.

Superintendent Hunt asked that the expression "some form of State authority" be defined.

Mr. Downing defined its use in the discussion and in the above committee report to mean, "Some form of State authority beyond or additional to city or village local authority of school officers."

Superintendent Hunt urged that the council take no action looking to the enactment of a law making such requirement. He thought it would be unwise and injudicious. He said, "While it is advisable to employ as teachers graduates of normal schools and training schools, it is nevertheless true that the charters of cities are looked upon and represented (in the communities) a certain vested right. Local authorities sometimes have need of the opportunity to exercise their legal authority in licensing competent teachers whom they wish to employ. As for instance, they sometimes call into their service teachers whose education, training and experience have been acquired in other States, and who have no license granted by State authority in New York. He stated that the school authorities of Corning, while employing almost exclusively teachers licensed by State authority, are opposed to such requirement as is recommended in the report."

Superintendent Maxwell: "The council it seems to me should act with great deliberation and care in this matter. This resolution seems to me to be vague and indistinct. It proposes to get at the thing indirectly; to impose a penalty for not doing a thing which has not been established; a penalty for violating a rule not yet enacted. This is one of the most important and serious things now before this council. The State Department is already pretty well established in the granting of licenses. It already applies to the country districts. No one can be admitted to a normal school unless by permission of the State Superintendent; after January 1, 1897, no city can employ a teacher not professionally trained or who has not had three years' experience. We should not propose any additional law or amendment to that law, chapter 1031, before we

see how that law is going to work. Attempts were made last year to upset that legislation, and other attempts will be made this year in the same direction. We need all our power, strength and energy to keep what we have. It is unwise to attempt more just now. There are some points in connection with the operation of the law that are entirely within the province of the superintendents, in conjunction with the State Department, to adjust. I approve of examinations for admissions to teachers' training schools. We rejected 70 graduates from State institutions who, as applicants for admission to our training school, failed to pass entrance examination. I have been surprised to find how low the standard of admission into the State normal schools really is. It is lower than that for admission to training classes under chapter 1031. Whatever is desirable to be done in this matter should be carefully done, and should have the approval of the cities themselves. I would move that action be deferred, that the committee be continued and increased by two additional members."

Superintendent Emerson explained his position in signing and accepting the report of the committee, as acquiescing in the concessions made rather than as actively supporting the principle involved. He preferred delay, and favored Superintendent Maxwell's motion.

Mr. Whitney of Ogdensburg said all objections had been satisfactorily explained. He stood by the report.

Mr. Downing, of the State Department, said this resolution called for no legislation this year. It simply called for an expression of this council of its opinion. The resolution expressly says that "no statute should be enacted." He did not propose to amend chapter 1301. But he would like to see the council put itself on record as against the abominable practices which prevailed in some cities. A teacher may have tried to teach for three years and made an absolute failure of it, the city superintendent could license her. Where a superintendent is clubbed into submission by the mayor or school board, and licenses such unfit persons, there is no way thereafter of getting rid of them. The State should certainly provide a way in which this could be prevented.

Superintendent Skinner: I want to say a word or two with reference to this matter. The topic is one which I had the pleasure of submitting to the president on his invitation. If you remember, I discussed the same topic in the annual report to the Legislature. I suggested it because I believed it wise to secure legislation looking to this end. But I suggested it so that the superintendents of this council might look this question squarely in the face. When I heard the report from Long Island City yesterday I was very glad that I had suggested this topic. When educators contemplate the conditions which permit such outrageous political methods and the lowest form of gutter politics to enter into the control of

the schools of Long Island City or anywhere else every gentleman here will agree with me that the State of New York in its majesty and liberality in the support of the schools should never pay a dollar for their support in such a place. (Applause.) We are all glad to thank God that there is but one such place in the State. It is our duty to begin to stamp out such a system from the time we have knowledge of it. It is a disgrace to us all when we know of the conditions existing there. I do not need to assure you that in all the relations between this council and the Department there has been the fullest harmony and accord, and promises to reach the best results. It has been a pleasure to notice the loyal support which this council has given to the efforts of this Department from year to year. It is one of the glories of this State that chapter 1031 is accepted as a long step in advance in the right direction. New York State, through this council, has been given a high reputation for its efforts in this direction to uplift the cause of education. I believe in the successful working of that law in the loyal support given to it by every superintendent. Chapter 1031 is the first legislation ever put on the statute books which establishes any relation between the State Department and the city superintendent and the licensing of teachers. That certainly is a great advance. Sometimes the large cities say let us conduct our own business and license our own teachers. The only purpose in submitting this topic was simply to invite discussion and get an expression of opinion whether it is just and right for the State, which is liable to the support of its schools, to be operated through you in the licensing of teachers. The State to-day works through every school commissioner in the State, not by itself, but in harmony with him. I do not want a law which would allow the State Department alone to license or manage the licensing of teachers. I would continue the present condition, that of cordial relations between the State and the local authorities. I always say to the superintendent, if you know a good teacher and can vouch for that person, let us keep them in the profession. If we can get them in any other way let us get hold of them. There is no disposition to hide behind resolutions or cover up action or to do anything on the sly. I wouldn't give much for legislation obtained on the sly. I believe it should be fully explained and it should be obtained out in the open. I had no idea of securing additional legislation. I am perfectly satisfied to have the matter referred to the committee.

Superintendent Blodgett said his board years ago had adopted the uniform examination system and this was a protection against incompetent teachers. He showed a case where a teacher had been appointed, but could not take his position because he could not take the examination.

Mr. Maxwell said he had not changed his mind. Since 1854 the city of Brooklyn had had regulations which prevented the employment of unqualified teachers. He was fully in accord with the spirit and letter of chapter 1031. He believed it should be made a misdemeanor to employ a teacher who was not properly qualified. He agreed with Mr. Downing that this point needs safeguarding.

Superintendent Burgess, of Poughkeepsie, asked whether a teacher who has had three years' experience can be refused eligibility to employment by the local authorities without some further legal requirements, sent as the report of the committee proposes. Mr. Downing announced in the affirmative by reading the section of the law pertaining to cities. He concurred in Superintendent Maxwell's motion to recommit the question of committee.

Superintendent Burgess, asked whether a board of education would be justified in refusing to employ a teacher holding a first grade uniform certificate, and thus discredit a license granted under State authority.

It was answered that cities have the right to make any additional general requirements they see fit. The motion prevailed, and superintendents Maxwell and Hunt were added to the committee.

President Scott announced that all cities but one have been represented by the presence of their superintendents at this meeting, and that the same is true of all but about a half dozen of the villages employing official superintendents. He spoke of the absence of Superintendent Bullis, of Oswego, as being due to a sprained ankle. On motion of Mr. Downing the secretary was directed to send Superintendent Bullis a message of sympathy.

The council then passed to election of officers for the ensuing year.

Superintendent Maxwell nominated Superintendent Blodgett for president. On motion, the secretary cast the ballot of the council for Mr. Blodgett, and he was declared unanimously elected.

Superintendent Snow nominated Superintendent Emerson for vice-president. On motion, Mr. Emerson was elected by ballot cast by the secretary.

Superintendent Maxwell moved the re-election of Superintendent Belknap as secretary and treasurer. On motion, the president cast the ballot of the council for Mr. Belknap and he was declared elected.

Superintendent Burgess, of Poughkeepsie, invited the council to hold its next annual meeting in that city.

Superintendent Norris invited and urged the council to meet next year at Canandaigua.

Dr. Schaufler invited the council to meet in New York city. Superintendent Cole spoke in favor of Poughkeepsie.

On second ballot Canandaigua was chosen as next place of meet-

ing, thirty-one votes having been cast for Canandaigua and twenty-seven for Poughkeepsie.

On motion of Superintendent Snow, the secretary was directed to print upon the program of the next meeting the entire active membership of the council.

On motion of Superintendent Rogers, the officers of the council were requested to endeavor to secure concessions for railroad fare of members attending next meeting.

Superintendent Whitney presented the following, which was unanimously adopted:

Resolved, That it is the sense of this council that, for the efficient continuance of the important work of visual instruction, an appropriation of \$25,000 will be required; and that this council earnestly requests the Legislature to make such appropriation.

The council then took up consideration of the topic, "How can we stimulate love for good reading?"

Superintendent Sherman Williams, of Glens Falls, was asked to begin the discussion by relating his experience and the provisions made for this purpose in Glens Falls schools. This he did in a most interesting manner. He considered the habit of reading good literature to be a matter of formation rather than of reformation.

Provision for much reading of good literature is made in the course of public school education at Glens Falls, beginning with the lowest grade in the primary school with stories to be told and read to pupils by the teacher and followed by selected lists of books to be read by pupils at school and at home. The home reading begins with the fifth school year; is required, and pupils who have not done it are not promoted, and the teachers must satisfy themselves that the home reading has been done with reasonable care. The board of education appropriates from \$100 to \$300 annually for supplementary reading. They have also an endowed library by which sufficient copies of books on the home reading lists are made available to pupils. He had found that the kind of reading done has improved every year. When a child leaves school his education in arithmetic, geography, etc., stops, but as he has acquired a taste for good reading, his instruction in this direction goes on forever.

Superintendent Lawton, of Nyack, said that their board appropriated \$300 per year for a similar purpose.

Superintendent Maxwell spoke of the value of the early formation of the habit of good reading. He also intimated that there may be little educational value in the stories told and read to pupils by the teacher. They have little value if the child merely sits in a receptive condition and does not idealize that which is being repeated or read. He referred to the device employed in some cities, of having children represent in some concrete way their conception

of the individuals or personalities in the stories read and told to them. He referred specifically to the steps by which colleges generally in the United States have come to require on the part of those seeking admission the reading and understanding of a considerable amount of good literature. The list of books approved and required by the New England colleges had also been accepted by the colleges of the Middle and the Western States, in general, and the State Superintendent of Public Instruction adopted the same requirements in high school courses of study in this State. The books in the required list represent two classes; first, those to be critically read and studied; second, those to be read and to form the basis of theme writing. He favored carrying out this plan to some extent below the high school. He repeated that ordinary readings of good books, while a good thing, is in itself not enough, but needs to be reinforced by some means that will increase their reader's actual knowledge and form taste.

Superintendent George Griffith outlined the course pursued in Utica. Course of reading to pupils by teacher continued through the sixth school year, and of house reading by pupil from that time through the entire high school course. He acknowledged their indebtedness to Superintendent Williams for suggestions, lists of books and inspiration on the subject. The home reading referred to is not required, but is recommended. Children report their reading to the teacher, who keeps the record upon a sheet of paper, which is passed on to the child's next teacher when the child is promoted, and in this way a permanent record of the reading of each child is secured. The principals send summarized reports of this reading to the superintendents.

Superintendent Griffith read several details from reports of last year's work. They showed that 13,278 books were read; 12,562 were read and discussed with the teacher after reading. Eighteen per cent of pupils had not done any of the suggested readings; 32 per cent. had read some, but not all; 21 per cent. had read the required number; and 29 per cent. had read more than the required number.

His reports on the effects of the reading in the lives and homes of the pupils were so interesting that he was asked to dictate one report while all the superintendents copied it. It was as follows: One child whose parents are beggars and whose home is ———, came to school with sparkling eyes and said: "Mamma washed the dishes for me last night, and I read 'Little St. Elizabeth' to her. Mamma can't read, but she thought the story was just grand, and she said she would wash the dishes for me any night that I'd bring home such a good story to her."

Superintendent Williams said that in Glens Falls they had found that the nightly attendance of boys at saloons had fallen off one-half since this reading had been introduced.

President Blodgett then took his seat as presiding officer and returned thanks for the honor conferred. He said he had been glad to see the gavel in the hands of President Scott, who had been a member of the council since its formation. He had exhibited great courtesy, that quality of character which has been defined as originating in kindness and exercised habitually. He said Mr. Scott had now gone higher and it was hoped would always meet with the board.

On motion of Superintendent Griffith, of Utica, Mr. Scott was made a life member of the association. Mr. Scott, visibly affected, returned his sincere and hearty thanks and he was received with hearty applause.

Superintendent Maxwell.—I take great pleasure in moving that this council desires to put on record its appreciation of the ability, courtesy and good judgment with which Superintendent Scott has discharged the duties of the position; carried.

President Blodgett said the program had been an excellent one and well carried out.

On motion of Superintendent Cole, of Albany, a vote of thanks was given to the superintendent, school board and teachers of Utica for the arrangements made and courtesies shown; to Professor Bickmore for his lecture and to the newspapers of Utica for their complete and accurate reports.

The treasurer submitted the following report which was approved and spread upon the minutes:

Balance on hand as reported October 18, 1893.....	\$125 31
Cash received from memberships October 18, 1893....	37 00
	<hr/>
	\$162 31
Disbursements to October 20, 1894.....	73 44
	<hr/>
	\$88 87
Cash received from memberships at Buffalo.....	49 00
	<hr/>
	\$137 87
Disbursements from October 20, 1894 to October 15, 1895.	69 86
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	\$68 01
Cash received from memberships at Newburgh.....	60 00
	<hr/>
	\$128 01
Disbursements, October, 1895 to October 14, 1896.....	82 77
	<hr/>
Balance on hand October 15, 1896.....	\$45 24
Cash received from memberships at the Utica meeting.	94 00
	<hr/>
	\$139 24
	<hr/>

Superintendent Maxwell moved that the council omit the session of the afternoon; and that when it adjourn it be to meet at Canandaigua, on the 20th, 21st and 22d days of October, 1897.

The motion was carried, and, upon further motion, the council adjourned.

ACTIVE MEMBERS OF THE COUNCIL

Marcus W. Scott, President of the Council.....Binghamton, N. Y.

Hon. Chas. R. Skinner, State Superintendent of Public Instruction.
Albany, N. Y.

Augustus S. Downing, Supervisor of Institutes and Training
Classes, Albany, N. Y.

Arthur M. Wright, State Truant Officer.....Albany, N. Y.

Charles N. Cobb, Inspector for Regents of the University,
Albany, N. Y.

Arthur G. Clement, Inspector for Regents of the University,
Albany, N. Y.

• Frank H. Wood, Inspector of Training Classes....Albany, N. Y.

Thomas E. Finegan, State Examination Clerk.....Albany, N. Y.

L. O. Wiswell, Department Librarian.....Albany, N. Y.

William J. Milne, President State Normal College..Albany, N. Y.

Thomas B. Stowell, Principal State Normal School..Potsdam, N. Y.

John M. Milne, Principal State Normal School.....Geneseo, N. Y.

C. W. Bardeen, Editor School Bulletin.....Syracuse, N. Y.

Charles W. Cole, Superintendent of Schools.....Albany, N. Y.

Charles S. Davis, Superintendent of Schools....Amsterdam, N. Y.

Benj. B. Snow, Superintendent of Schools.....Auburn, N. Y.

R. H. Halsey, Superintendent of Schools.....Binghamton, N. Y.

Wm. H. Maxwell, Superintendent of Schools....Brooklyn, N. Y.

Henry P. Emerson, Superintendent of Schools.....Buffalo, N. Y.

George E. Dixon, Superintendent of Schools.....Cohoes, N. Y.

Leigh R. Hunt, Superintendent of Schools.....Corning, N. Y.

J. W. Babcock, Superintendent of Schools.....Dunkirk, N. Y.

E. J. Beardsley, Superintendent of Schools.....Elmira, N. Y.

James A. Estee, Superintendent of Schools....Gloversville, N. Y.

Wm. R. Prentice, Superintendent of Schools..Hornellsville, N. Y.

F. J. Sagendorph, Superintendent of Schools.....Hudson, N. Y.

H. W. Foster, Superintendent of Schools.....Ithaca, N. Y.

Rovillus R. Rogers, Superintendent of Schools....Jamestown, N. Y.

Wm. S. Snyder, Superintendent of Schools.....Johnstown, N. Y.

Charles M. Ryon, Superintendent of Schools.....Kingston, N. Y.

Thomas A. Caswell, Superintendent of Schools..Little Falls, N. Y.

Emmet Belknap, Superintendent of Schools.....Lockport, N. Y.

John E. Shull, Superintendent of Schools..Long Island City, N. Y.

James F. Tuthill, Superintendent of Schools....Middletown, N. Y.

Charles E. Nichols, Superintendent of Schools.Mount Vernon, N. Y.

R. V. K. Montfort, Superintendent of Schools....Newburgh, N. Y.
John Jasper, Superintendent of Schools.....New York, N. Y.
Albert T. Schauffler, Assistant Superintendent of Schools,
New York, N. Y.
Seth T. Stewart, Assistant Superintendent of Schools,
New York, N. Y.
Edward D. Farrell, Assistant Superintendent of Schools,
New York, N. Y.
N. L. Benham, Superintendent of Schools....Niagara Falls, N. Y.
Barney Whitney, Superintendent of Schools..Ogdensburg, N. Y.
Fox Holden, Superintendent of Schools.....Olean, N. Y.
*George E. Bullis, Superintendent of Schools.....Oswego, N. Y.
Edward Burgess, Superintendent of Schools..Poughkeepsie, N. Y.
Milton Noyes, Superintendent of Schools.....Rochester, N. Y.
W. D. Manro, Superintendent of Schools.....Rome, N. Y.
S. B. Howe, Superintendent of Schools.....Schenectady, N. Y.
A. B. Blodgett, Superintendent of Schools.....Syracuse, N. Y.
John H. Willets, Superintendent of Schools.....Troy, N. Y.
George Griffith, Superintendent of Schools.....Utica, N. Y.
Wm. G. Williams, Superintendent of Schools....Watertown, N. Y.
James K. Gatchell, Superintendent of Schools..Watervliet, N. Y.
C. E. Gorton, Superintendent of Schools.....Yonkers, N. Y.
*F. A. Greene, Superintendent of Schools.....Albion, N. Y.
John Kennedy, Superintendent of Schools.....Batavia, N. Y.
J. C. Norris, Superintendent of Schools.....Canandaigua, N. Y.
Edward L. Stevens, Superintendent of Schools.....Catskill, N. Y.
F. E. Smith, Superintendent of Schools.....Cortland, N. Y.
*John J. Chickering, Superintendent of Schools..Flushing, N. Y.
Wm. H. Truesdale, Superintendent of Schools.....Geneva, N. Y.
Sherman Williams, Superintendent of Schools..Glens Falls, N. Y.
H. H. Snell, Superintendent of Schools.....Hoosick Falls, N. Y.
Wm. J. Ballard, Superintendent of Schools.....Jamaica, N. Y.
Cyrus E. Smith, Superintendent of Schools....Woodhaven, N. Y.
Geo. F. Sawyer, Superintendent of Schools...Lansingburgh, N. Y.
Isaac E. Young, Superintendent of Schools..New Rochelle, N. Y.
Clinton S. Marsh, Superintendent of Schools, N. Tonawanda, N. Y.
E. W. Griffith, Superintendent of Schools.....Norwich, N. Y.
Ira H. Lawton, Superintendent of Schools.....Nyack, N. Y.
W. C. Franklin, Superintendent of Schools.....Oneonta, N. Y.
Edwin P. Recordon, Superintendent of Schools.....Owego, N. Y.
George H. Hoxie, Superintendent of Schools....Penn Yan, N. Y.
James G. Riggs, Superintendent of Schools....Plattsburgh, N. Y.
John M. Dolph, Superintendent of Schools.....Port Jervis, N. Y.
Thos. R. Kneil, Superintendent of Schools, Saratoga Springs, N. Y.
*F. S. Porter, Superintendent of Schools.....Seneca Falls, N. Y.
J. Irving Gorton, Superintendent of Schools....Sing Sing, N. Y.

- A. Hall Burdick, Superintendent of Schools.....Stapleton, N. Y.
- F. J. Diamond, Superintendent of Schools.....Tonawanda, N. Y.
- Alex. Falconer, Superintendent of Schools.....Waterford, N. Y.
- Ralph A. Stewart, Superintendent of Schools, White Plains, N. Y.
- P. M. Hull, Superintendent of Schools.....Waverly, N. Y.
- *Henry Delamain, Superintendent of Schools, College Point, N. Y.
- Fred. N. Moulton, Principal.....Saugerties, N. Y.
- Chas. H. Verrill, Prin. Del. Lit. Institute.....Franklin, N. Y.
- Amos M. Kellogg, Editor School Journal.....New York, N. Y.
- J. A. Greene.....New York, N. Y.
- O. P. Conant.....New York, N. Y.
- Arthur Cooper.....New York, N. Y.
- W. R. Glen.....New York, N. Y.
- George Cooper.....New York, N. Y.
- Randolph McNutt.....Buffalo, N. Y.
- E. S. Harris.....Catskill, N. Y.
- J. H. Thiery.....Long Island City, N. Y.
- K. N. Washburn.....Springfield, Mass

E. N. Jones, principal of the Plattsburgh Normal School, and representatives from school boards in a number of cities of the State, and teachers and citizens of the city of Utica attended some portions of the sessions of the council.

*Paid membership fee though not attending the meeting.

APPENDIX

EXHIBIT No. 3

STATE MAP OF NEW YORK, AS AN AID TO THE STUDY OF GEOGRAPHY IN THE PUBLIC SCHOOLS, WRITTEN BY WILLIAM MORRIS DAVIS, PROFESSOR OF PHYSICAL GEOGRAPHY, HARVARD UNIVERSITY, CAMBRIDGE, MASS., FOR PUBLICATION BY THE NEW YORK STATE DEPARTMENT OF PUBLIC INSTRUCTION.

STATE MAP OF NEW YORK

AS AN AID TO THE STUDY OF GEOGRAPHY IN

PUBLIC SCHOOLS

BY WILLIAM MORRIS DAVIS

Professor of Physical geography in Harvard University, Cambridge, Mass.

The topographical map of New York state is in process of preparation on a scale of about an inch to a mile (1:62,500) at the joint expense of the state and of the United States geological survey. It is constructed for the most part from original surveys made in recent years by the topographers of the geological survey, but earlier work by the U. S. coast and geodetic survey and by the lake survey is utilized as far as possible.

Fifty-nine sheets of the state map have now been published (October 1, 1896). Many more sheets will be required to cover the entire state; some of them will overlap on adjoining states. Teachers wishing copies of the published sheets for use in the public schools of the state should apply to the Secretary, University of the State of New York, Albany, N. Y.

The following pages are written in anticipation of the completion of the map for the whole state.

The plan on which the map of New York is prepared is uniform with that adopted for the topographic map of the whole country, now in preparation by the U. S. geological survey, except that the scale of certain southern and western states and territories is less than an inch to a mile. All the waters are printed blue; the latitudes, blue; the artificial features (cities, villages, roads, boundaries, names, etc.) black.

Four states have already published complete maps: New Jersey, in 20 large sheets; Massachusetts, in 54 sheets; Rhode Island, in 6 sheets; Connecticut, in 33 sheets.¹

Altitudes are indicated by *contour lines*, which may be explained as follows:—Imagine a level line at a height of 100 feet on the side slopes of the Mohawk valley; it would turn aside into every lateral valley and advance around all the projecting hills. Such a line is called a “contour line,” and its irregular path is determined by the topographic surveyor and drawn upon

¹An account of these maps and of many other sheets from various parts of the country, as well as of maps and charts issued by various governmental bureaus, together with the means of obtaining them, generally at a very small cost, may be found in a small book, entitled *Governmental maps for use in schools*, published by Henry Holt and Co., New York, 1894; price, 35 cents.

his map. Similarly, lines are drawn at altitudes of every even 20 feet above sea level; their height being indicated by numbers at convenient points. Where the hillsides are steep, the successive contour lines are crowded close together on the map, giving the appearance of a brown shading; where the surface is nearly level, successive lines are far apart, and here much of the map is left white. Thus the form and the dimensions of the hills and valleys are clearly portrayed.

Objects of geographic study. The systematic use of the state topographic map sheets in schools would greatly promote the chief end of all geographic study; namely, a clear perception of the fundamental facts of earth form in their relations to the occupation of the earth by man.

There is no occupation in which geographic surroundings do not enter as controls, either direct or indirect. The farmer is continually held in close touch with the local surface features. The railroad manager has continually to deal with the problem of transporting products from one district where they are supplied to another where they are consumed; and the successful working of his road depends largely on its cost of construction and operation — both of these depending in turn on the form of the region that the road traverses — and on its location with respect to centers of population. The merchant deals in the products of the earth, and their cost is dependent on such geographic factors as distance of source, ease of supply, demand in respect to domestic needs, and so on. The legislator is chiefly concerned with matters of trade and commerce, and these great activities are largely in the hands of geographic controls.

The geographer has to investigate the nature of geographic facts and of the controls that they exert on human conditions. The teacher and student of geography should turn a larger share of their attention from mere matters of location to the more important and interesting questions of the reasons for location, as determined by various classes of geographic controls, such as the forms of land and water, their distribution and relative positions; the products of the earth, and their dependence on geologic structure, climate, soil, etc.; the available sources of power, such as coal, waterfalls, and wind, which in turn influence manufactures, trade and commerce. This pamphlet is chiefly concerned with the manner in which the first class of influences — the forms of land and water — may be brought more clearly to the understanding of young scholars by the aid of the state map sheets.

In the competition that every one must enter in order to gain a livelihood in an active community, it is the duty of the state and the privilege of its teachers to see that all the children of the state shall be equipped as well as possible for their life work; and in this equipment, a clear understanding of the manner in which our mode of living is related to the earth on which we live will be found of great practical importance.

Observational geography. The fundamental facts of earth-form may be learned in several ways: by direct observation in the home district, by study of pictures and maps, and by study of verbal descriptions. Much use should be made of the home district, specially in village schools, as it supplies the only examples of actual geographic facts accessible in their natural condition to young scholars. A well cultivated habit of observation early acquired at home

leads to observant habits when abroad in later years. Inattention to home surroundings during school years may be followed by geographic blindness through life.

While home observation may be profitably carried on without a map, it is greatly aided by a good map on which the features of the district surrounding the school are shown on a large scale with reasonable accuracy; for such a map excites an interest in local exploration of the actual forms which it graphically represents. It is seldom that such exploration can be carried on as class work in large cities, but in smaller communities it may be accomplished without serious difficulty and it should there be systematically encouraged. Field study is of course best undertaken in the open season. It may be carried on by classes, by small parties, or by individual scholars. Uniform accomplishment by all members of a class should not be demanded or expected. Tracings from the map may be used when it is not advisable to carry the local sheet into the field.

The following suggestions are offered in the hope of promoting the use of the local map sheet as an aid in the study of local geography. The relation of the local sheet to the other sheets of the state map is considered on a later page. The state is unusually rich in varied topographic forms. Teachers and scholars who begin by carefully exploring their home district and who then expand their experience by systematic use of the state map, will acquire a clear knowledge of many fundamental geographic facts, and on this basis, the geography of the rest of the world may be firmly founded.

Linear and locative work. Encourage excursions over roads, indicated on the map, to definite objective points; specially to hill tops, from which general views may be had. Brief notes should be taken of geographic details on the way out and back, returning by a different route when possible. Sketch maps of the route and of the field observed may be occasionally prepared; but this kind of work should be given small weight. The scholars should be taught to be map users rather than map makers. Direction, distance, and height should be determined by observation and estimate, as well as by use of the map. A pocket compass will be useful in determining directions.

From the best accessible points of view, observe various objects, such as hills, valleys, streams, bays, islands, villages, roads, etc.; describe them in simple language; identify them on the map by means of direction, distance, form, etc.; learn their names as far as possible. Knowledge of the home district may be thus extended, and good practice will be gained in the use and reading of maps. This will be serviceable whenever other maps are used. Excellent practice in narrative and descriptive composition may be based on these excursions.

Areal work. Observe the different kinds of form and surface that are to be found in the home district. As before, use the map as a guide in this kind of exploration. Locate each kind of form on the map after it has been actually observed. Define its area and boundaries with sufficient accuracy, and measure its dimensions on the map. Practice estimating distances and heights outdoors, and test the estimates by the map. The following list of geographic features will suggest the kind of work here intended; a number of these features being within reach of every school in the state. The phrasing of the explanatory descriptions is here addressed to teachers rather than to scholars.

Mountains. Bold masses of strong relief. The Adirondacks and the Catskills are the chief mountain groups of the state. In both districts, there is little appearance of linear, ridge-like form, such as characterizes Shawangunk mountain and the Palisades (see Ridges). Although the side slopes are frequently steep, the summits are generally rounded rather than sharp, and prominent peaks do not occur. In the Adirondacks, the separate mountains are generally round or oval masses, often exhibiting bold ledges or summit or slopes; they are composed chiefly of massive crystalline rocks. The mountain masses and valleys often show a tendency to follow northeast trends. In the Catskills, the mountains are again of roughly circular or oval form, but are peculiar in possessing, half concealed beneath heavy forests, many cliff-like ledges that may often be traced for some distance round the slopes; these ledges being simply the outcropping edges of the harder members in the great succession of horizontal layers of conglomerate, sandstone and shale of which the Catskills are composed.

Highlands and uplands. Extended rolling surfaces at hilltop height, or greater or less elevation above sea level; sometimes surmounted by mountains, and often interrupted or dissected by valleys. The smaller highland areas between neighboring valleys are often called mountains or mounts; the smaller upland areas, similarly isolated, are called hills.

The highlands of the Hudson are the culmination of the uplands that gradually ascend northward from New York city. They are unlike the Adirondacks and the Catskills in not possessing strongly dominating summits: a view from the higher points shows all the adjacent highlands rising to a rather even skyline that slants gently southward, numerous valleys being incised beneath it. Many of these valleys and the even-topped highlands between them extend northeast and southwest, thus exhibiting the trend that so generally prevails throughout the Appalachian mountain system, of which the highlands are a part. To the northeast, they are continuous with the uplands and highlands of New England.² They extend southwest beyond the gorge of the Hudson, across northern New Jersey into eastern Pennsylvania. After a broad interruption between the Schuylkill and the Susquehanna, they are continued again in South mountain of southern Pennsylvania and then in the Blue ridge of Virginia. In contrast to the gradual descent southeastward from the highlands across the uplands to Long Island sound, they fall off abruptly on the northwest to the Great Appalachian valley lowland, of which the Hudson valley above Newburg is part.

Ridges. Linear elevations, straight or curved, with rather sharp crests and strong but not necessarily equal slopes on either side. The crests are sometimes even and continuous for many miles, sometimes notched, and sometimes cut down to lowland level by transverse streams.

The Palisade ridge is an excellent example of this class of forms. Beginning with slight elevation in Jersey City, N. J., it forms the west side of the narrow lower valley of the Hudson, gradually increasing in height in Little and High Tors near Haverstraw. It consists of a sheet of resistant lava, lying between weak sandstones and shales, all slanting to the west; hence the ridge has a gradual slope westward and bold bluffs on the east where the columnar or "palisade" structure of the lava sheet is strikingly shown.

Shawangunk mountain (pronounced ³ *Shongum*) is a high ridge of sandstone and conglomerate, generally bolder on the east than the west, and often rather broad crested, as about Lake Mohonk. This ridge fades away to the northeast, as the ridge-making rock stratum thins out: it continues far to the southwest into New Jersey and Pennsylvania as Kittatinny mountain; thus it may be regarded as the most northeastern representative of the strong Alleghany ridges characteristic of the Appalachians of Pennsylvania.⁴ Associated with Shawangunk mountain and extending farther northeast, about

² See the *Physical geography of southern New England*. National geographic monograph No. ; New York American book co., 1896, 20 c.

³ N. H. Darton, Geology of Ulster county, 47 annual report. N. Y. State Museum, 1894.

⁴ See the *Northern Appalachians*. Nat. geogr. monogr., no. 6. New York American book co., 20 c.

as far as Athens, are many lower ridges. West of Catskill, they exhibit in small pattern the peculiar zigzag arrangement that on a much larger scale prevails in the Alleghany ridges of Pennsylvania.

West and Bald mountain, either side of Whitehall, are unsymmetrical ridges, precipitous on the west, less steep on the east. The dissevered parts of the Highlands of the Hudson sometimes deserve to be called ridges, as Breakneck ridge; but as a rule they are too broad-topped to serve as types of this form.

Plateaus and uplands. The general definitions already given for highlands and uplands will serve again here; but there is a tendency among geographers to associate "highlands" with more rugged masses of irregular structure, such as the Scotch Highlands,⁵ while plateaus are better limited to elevated masses of horizontal strata, with less variety of upper surface, but like the highlands often more or less dissected by valleys. The high plateaus of Utah are typical examples of this kind. Upland is a more general term, applicable to the lower marginal parts of both highlands and plateaus.

The northern border of the Alleghany plateau enters the southern part of New York state. It is greatly dissected by numerous valleys, which branch irregularly in all directions, exhibiting no prevailing trend such as is seen in the more systematic valleys of the Highlands. The original continuity of the plateau surface is thus greatly interrupted; the plateau is transformed into a group of large, broad-topped masses with irregularly ramifying spurs standing between the branching valleys. The relative continuity of the plateau surface, the amount of dissection by valley cutting, and the strength and variety of relief thus developed are important characteristics that, along with altitude deserve careful mention in the description of plateaus. The dissected plateau of southern New York increases in altitude eastward, where the Catskill mountains rise above the prolongation of its surface.

A good example of a low plateau or upland is found in the platform of western New York (the Erie plain) that rises south of the lowland adjoining Lake Ontario (the Ontario plain) west of Rochester.

Escarpments. The abrupt descent of a plateau or upland to lower ground. The platform of western New York, just mentioned, descends northward to the adjacent lowland by a well defined escarpment, at the top of which is a cliff, formed by the outcropping edge of the nearly horizontal sheet of limestone (the Niagara limestone) which holds up the platform. The escarpment weakens and disappears eastward near Rochester as the limestone thins out. Although generally presenting a rather even front, it is sometimes indented, as at Lockport.

The northern margin of the Alleghany plateau descends to the lower ground that stretches from the Ontario plain to the Mohawk valley, by one or more escarpments of moderate strength, generally without summit cliffs, and much intersected by valleys that lead northward from the plateau. In the western part of the state, the escarpment is single, rising rather rapidly from the Erie plain: it may be traced into Ohio nearly to Cleveland, where the plateau fades away. Eastward, the composite escarpment includes several strong limestone benches, forming the Helderbergs, that curve around the Catskills southwest of Albany.⁷ Thence southward, the eastern margin of the plateau, above which the Catskill mountains rise, forms the strongest escarpment in the eastern United States. West of Catskill village, it descends 1,500 feet in a horizontal distance of about a mile: deep, narrow valleys, locally called cloves, indent its face, as Kaaterskill and Plaaterskill cloves.

Hills. A term of general meaning, applicable to elevations of moderate size but of various origins. The lower marginal members of the Adirondacks are often small enough to be called hills rather than mountains. The lower western members of the Catskills rise as hills above the general level of the plateau on which they stand. The individual parts of the Alleghany

⁵ See A. Geikie, *Scenery of Scotland*. New York 1887, Macmillan.

⁶ C. E. Dutton, *Geology of the High Plateaus of Utah*. Washington, 1880.

⁷ N. H. Darton, *Geology of Albany and Ulster county*, 47th annual report. N. Y. State Museum, 1894.

plateau take the form of large hills, as Hawes, Hawley, and Matthews hills west of Elmira. The dissected escarpment of the plateau also takes the form of hills specially when viewed from the lower ground on the north, as Stockbridge hill, south of Oneida. The successive benches, by which the ascent to the higher part of the plateau is sometimes made, often begin as outlying hills; thus the upland east and west of Cayuga lake, 1,500 feet elevation, is overlooked by hills 500 feet higher on the south. The dissected members of the highland and upland in the southeastern part of the state are commonly called hills.

Many other hills of moderate size are formed of glacial drift (see beyond; *drumlins, moraines, eskers, kames*), or of wind-blown sand (see beyond; *dunes*).

Lowlands and plains. Surfaces of small altitude and moderate relief. These differ from uplands, highlands and plateaus in degree rather than in kind; no distinct division can be drawn between the two groups. The Erie plain or platform of the western part of the state stands as a lowland with respect to the higher Alleghany plateau on the south, but as an upland with respect to the lower Ontario plain on the north. On the west, these lowlands are sharply separated by the Niagara escarpment; but east of Rochester they merge into a single lowland surface. The latter slopes gently to the lake, very smooth for many miles around its border, but further inland varied by hills of moderate height and by valleys of slight depth.

Eastward from Rome, this lowland merges into the Mohawk valley lowland. Taken together, all western and central New York, from the general escarpments of the plateau on the south to Lake Ontario on the north and thence around the west side of the Adirondacks to the St Lawrence valley may be described in a general way as a lowland, but it possesses many minor features that deserve local attention.

Hilly lowlands border Lake Champlain, specially on the east. Continued northward, they merge into the broad St Lawrence valley lowland. Continued southward, they form the floor of the valley lowland between the Highlands on the east and southeast and the escarpment of the Catskills on the west, thus constituting a part of the Great Appalachian valley, traceable to Alabama. This lowland floor is much interrupted by low hills and ridges and sometimes by outlying members of the Highlands, as well as by many drift hills (see *Drumlins* below), as well as by numerous narrow valleys; the local valley of the Hudson being entrenched some 200 feet beneath the general surface of the broad valley lowland.

As the southeastern uplands descend toward the shore of the sound, they may be described as hilly lowlands; but no definite line can be drawn to separate the lowland, upland, and highland portions of the gradually ascending hilltop areas.

A lowland enters New York from New Jersey, between the highlands on the northwest and the Palisade ridge on the east: it terminates back at Haverstraw on the Hudson. This lowland is underlain by weak red sandstones and shales, which frequently give a reddish color to the soil.

Local observation gives many examples of plains of limited extent, associated with various other features. These will be more fully enumerated below as lacustrine plains, flood plains, delta plains, estuarine plains, terraced plains, moraine-wash plains, etc.

Valleys. Linear depressions, whose enclosing slopes normally descend to a trough line that has a continuous descent to the sea and that is ordinarily occupied by a stream or river. One of the most important valleys in the state is that by which the Hudson traverses its highlands; this is so remarkable a constriction in the generally more open valley that it deserves the name of *gorge*. Gorge is thus best applied to the narrow part of a valley, several miles in length, between wider parts up and down stream. Falls often stand at the head of a gorge, there separating a high-level upper valley from a low-level lower valley: Niagara Falls and gorge are typical examples of this combination of forms. *Chasm* and *glen* are both used in New York in this sense for smaller forms, such as Ausable chasm and Watkins glen. *Canyon* is better limited to a narrow valley of remarkable depth for a large part of its length: no proper examples of such forms occur in this state. *Ravines* are narrow and rather deep valleys enclosing the head

water part of streams; the cloves that indent the Catskill escarpment are large ravines. *Gap* is the locally narrow part of a transverse valley where it passes through a ridge, as between West and Bald mountains, at Whitehall. Valleys of more open form are found in great variety in the plateau, highland, and mountain areas of the state.

The broad valley lowland already mentioned as enclosed on the east by the Highlands and their northern extension, and on the west by the Catskill escarpment, consists of the confluent valleys of many small streams tributary to the Hudson: hence the whole lowland may in one sense be called the Hudson valley. But in another sense, this name would be restricted to the narrow trench that the Hudson has cut in the floor of the broad valley lowland. The broad depression between the Adirondacks on the north and the Helderberg escarpments on the south might in the same way be called the Mohawk valley; although this name is more generally given to the trench cut by the Mohawk in the floor of the depression. Again, the very broad depression between the Laurentian highlands of Canada on the north and the Alleghany plateau on the south might be justly called the Ontario valley.

Forms of glacial origin. The forms thus far described are determined by the destructive action of weather and water on rock structures. Besides these, there are many land forms of subordinate size, consisting of unconsolidated material, known under the general name of *glacial drift* (stones, gravel, sand, clay), that has been deposited through the agency of ice, or of water running from ice, when New York and the adjacent northern states and Canada were covered with an ice sheet similar to that which now covers Greenland. This peculiar accident in our history occurred when the general form of the state, as above described, had been assumed; and since then, but little change has occurred; hence it is argued that the "glacial period" should have a relatively recent date. The slowly moving ice-sheet rubbed heavily on the ground beneath, dragging along all the loose soils of preglacial time, grinding off much rocky material from the exposed ledges, and sometimes gouging out the valley floors, specially where the rocks were weak. Streams running beneath the ice aided in the work. When the ice melted away, much drift was left scattered over the country. Sometimes it was spread rather evenly over the rock surface, without significantly altering its form: it may be then called *sheet-drift*. But it often happens that the drift is locally thickened to one, two, or three hundred feet; then it masks the fundamental hills, valleys, and lowlands, and gives a new expression to the surface, deserving particular attention in local study.

Rock basins. Where the ice sheet exerted a strongly destructive action, it excavated depressions in valley floors, and these now hold lakes: Cayuga lake is believed to have been produced chiefly in this way, and the other members of the group of Finger lakes are presumably of similar origin.

Sheet-drift. Although not producing new relief, sheet drift is frequently spread out evenly, obliterating the minor inequalities of rock form, and producing a smoothly rolling or plain surface. In such areas, rock ledges are seldom seen, except in stream-trenches. The drift cover unstratified, and firmly compressed, though not consolidated. It is often popularly called "hard pan;" its geological name is *till* or *boulder clay*. The soil is often unlike that which the underlying rock stratum would furnish; that is, a sandy, gravelly drift may overlies limestone.

Drumlins. Till is sometimes accumulated in hills of elliptical base and arched profile, known as *drumlins*; the longer axis often measuring half a mile or more and standing parallel to the direction in which the ice sheet moved; the height reaching 100 or 200 feet. Great numbers of these hills are found in Wayne county, where they are unusually long and narrow, and closely crowded together, so as to control the direction of most of the roads and the form of the fields. Scattered drumlins occur in the Hudson valley lowland, southeast of Albany.

Moraines. Drift that was carried, dragged or washed to the margin of the ice sheet forms irregular hills, containing many boulders and enclosing kettle-shaped hollows; these hills are known as *moraines*. These forms are of very variable strength, sometimes small and local; elsewhere so large as

to form ridges on plains, like the Pinnacle hills near Rochester; or to build strong barriers, 200 to 300 feet in height, across valleys, as near West Danby, in the valley of Cayuga inlet. Morainic hills cap the "backbone" of Long island and Fishers island. The Cypress hills, east of Brooklyn, are part of the moraine. In connection with the larger moraines, there are usually plains of sand and gravel gently sloping away from their southern base, as on Long Island: these have been formed by the wash of streams from the edge of the ice sheet, bearing much gravel and sand. The "Narrows" of New York harbor are determined by the moraine, which there crosses from Long to Staten Island.

The moraine which follows Long Island is an important "terminal moraine;" that is, its considerable volume shows that the ice sheet ended along this line for a long time; moreover, there are no distinct moraines or other strong signs of glacial action farther south. All of New York lies within the drift-covered area of the northern states, except a small triangular portion roughly indicated by the turn of the Allegheny river. The terminal moraine here enters Pennsylvania in the southwest corner of Allegheny county, trends northwest to Little Valley, north of Salamanca, and then turns sharply southwest, leaving the state again in the southeast corner of Chautauqua county.

Kames. Irregular hills of unevenly stratified sand and gravel, 50 or 100 feet or more in local relief, often inclosing hollows or "kettles." These hills are in many respects similar to moraines, but differ from them in being generally of small extent and in possessing a more perfectly stratified structure. They generally occur on low ground, and are thought to have been formed by streams flowing from the melting ice sheet in the last stages of the glacial period. Notable examples occur in the valley of Irondequoit creek, east of Rochester, and further south near Victor and Mendon.

Eskers. Serpentine ridges of gravel and sand. These are often associated with kames, and are taken to mark channels in the decaying ice sheet, through which streams washed much of the finer drift, leaving the coarser gravels between the ice walls.

Flood plains. Flat, meadow-like valley bottoms, flooded at times of high water. The stream usually wanders in an irregular, meandering channel through the plain, often changing its course by slowly cutting on the outside of a curve and building on the opposite side, or by suddenly abandoning an old channel and taking a new one during freshets. The suddenly abandoned channel remains for a time as an arm of stagnant water, but gradually fills with silt and forms part of the plain. Catskill creek above Leeds has a flood plain of much beauty; the flood plain of Mattawee river stretches south of Whitehall; many other examples could be named.

Terraces. Ancient flood plains, trenched by later valley cutting, so as to descend from their higher level to the present flood plain in one or more steps and benches. These are finely developed on Schoharie creek, on Bouquet river, west of Lake Champlain, and elsewhere.

Estuarine plains. The sediments deposited in the bottom of ancient estuaries may be revealed as plains by an uplift of the land. Such is the case with the clay plains that border the Hudson river on either side, at a height of 150 or 250 feet. Being now trenched by the river and by many side streams, they have the aspect of terraces. They are well seen at many points, as on either side of the river at Troy, or among the hills a little distance back from the river near Rhinebeck. These plains may be traced northward, past Lake Champlain to the St Lawrence valley. Their continuity proves that at the time of their formation New England was an island, separated from the rest of the continent by a long curved arm of the sea, of estuarine character.

Delta plains. Associated with the clay plains and terraces, representing the floor of the ancient estuary, there are gravel and sand plains at somewhat higher level, representing deltas built forward into the estuary by inflowing streams. One of the largest of these, formed at the former mouth of the Mohawk, constitutes the extensive plain between Albany and Schenectady, once at water level, now beautifully dissected by Normans kill and its branches.

Swamps, marshes and lacustrine plains. Ancient shallow lakes, in process of disappearance by filling with silt and vegetable growth, as well as by wearing down the outlet, take the form of swamps and marshes. Where overgrown with grass or reeds, they are called marshes, as at the north end of Cayuga lake, or on the upper Hackensack river; where occupied with bushes and trees, they are known as swamps, as Tonawanda swamp, on the Erie plain. When more completely drained, dry plains of a considerable area are laid bare: the plain of Genesee valley south of Rochester is an example of this kind.

The smoother floors of the Erie and Ontario plains are sheeted over with silts of lacustrine origin, deposited when the St Lawrence outlet was blocked by the retreating ice sheet (see ancient shore lines, below).

Tidal marshes are mentioned in a later section.

Brooks and rivers. Streams of water, bearing the drainage and rock waste of a certain area of land towards or to the sea. Small brooks offer excellent illustrations of many important features and processes whose larger occurrence characterizes great rivers. The brook is seen to flow along its *channel*, on its *bed* and between its *banks*. It may be traced up stream in diminishing volume, to its head: or down stream in increasing volume, fed by ground water from many unseen springs that open in its channel, or strengthened by inflowing branches. In dry seasons, its volume decreases as the ground water is drained away; its head may then not lie so near the upper end of its valley as before. In wet seasons, the brook more nearly fills its channel, and many little branches, dry before, bring water to it. In times of heavy rain, rills may be traced far up the tributary slopes, and the head of the brook reaches near its inclosing divide; its swollen volume overflows the ordinary channel and spreads over the flood plain. A brook is thus seen to be a very variable agency: similar variations are found in rivers. In dry seasons, the diminished streams are nearly clear. At times of flood, they are surcharged with the waste of the land that they bear towards the sea. The activity of streams and rivers thus varies as greatly as their volume.

It is only after seeing something of the life of a brook or river, and upon this as a beginning, building up an understanding of a large river or river system, that the conventional lines by which rivers are represented on maps gain their proper meaning to the young scholar. Hence after local observation, the brook or river of the home district should be identified on the local map sheet. Associated with rivers, attention should be given to various special features, briefly indicated as follows:

Divides. Trace the main divides and subdivides between the larger and smaller streams; note that the divide line is sometimes sharply defined, as on the crest of a ridge; sometimes vague, as on a plain. Draw in the divides in on the local map. *Slopes*, leading from the divides to streams; classify, according as they are steep or flat, long or short, smooth or rough. The rate of discharge of surface water in wet weather varies greatly with the condition of the slopes.

Attention should be given to the *arrangement* of stream courses and drainage areas. In districts where the relief has the form of parallel ridges, as on the valley lowland east of the Catskill mountains, the streams have a roughly rectangular pattern, in longitudinal and transverse courses. Mat-tawee river and East bay near Whitehall are longitudinal streams that turn and pass through a transverse valley on the way to Lake Champlain. In the plateau district, the streams have very irregular branches. The long straight valley of Peekskill Hollow creek exhibits the trend of the Highlands as well as the ridges on either side.

Streams on flat flood plains often have serpentine or meandering courses, like that of Oneida creek near its mouth. Such streams frequently shift their courses, cutting on the concave bank and building up the convex bank; or abandoning a long meander curve for a shorter path, or "cut-off," as the Mohawk has done above Utica.

Ponds and lakes. Bodies of water occupying hollows or basins in the land surface. Small ponds often lie in hollows among the morainic hills, as on Long island, or among kame hills, as at Mendon. Large ponds and

lakes frequently occupy parts of valleys that are barred off by irregular deposits of glacial drift: many lakes in the Adirondacks are of this origin. Certain lakes are believed to occupy basins that were excavated by glacial action: Cayuga lake may be taken as a type of this kind, but it is generally a difficult matter to determine how far glacial erosion has produced lake basins. Lakes Ontario and Erie occupy depressed parts of broad valley lowlands: glacial erosion, drift barriers, and local warping or deformation of the earth's crust are all thought to have been concerned in the production of these great lakes.

The action of streams tends to destroy lakes, filling them with delta deposits at the inlet, and lowering their surface by cutting down the outlet. Many small lakes have thus changed to swamps or meadow plains, as in examples already mentioned. The branches of Chazy river, on the northward slope from the Adirondacks, pass through many marshy meadows.

Rapids and falls. Places of more or less steep descent in the course of brooks and rivers. By far the greater number of falls in New York state result from the displacement of streams from their preglacial courses by drift barriers, whereby they are turned over ungraded surfaces, on the steeper parts of which they descend tumultuously. The falls of the Catskills at Leeds, of the Mohawk at Cohoes, and of the Hudson at Glens Falls are all of this kind. The northward course of Esopus creek on its way to the Hudson suggests displacement by a drift barrier, and the falls of this creek at Saugerties lead to the same conclusion. Niagara Falls result from the displacement of the drainage of the Great Lake region by the various combined causes that produced the lakes. The recession of falls may often be determined by careful observation from year to year. In process of time, the falls will be worn back until an even grade is developed for the stream and the falls disappear. This condition had been very generally reached by the streams in preglacial time, as may be inferred by comparing the well regulated stream courses in Pennsylvania beyond the glacial area, where falls and lakes are rare, with the disturbed condition of the drainage in New York, where falls and lakes are common.

Chasms, glens and gorges. Rivers that are displaced from their well opened preglacial valleys by drift barriers, have frequently cut deep and narrow trenches along their new courses: falls are often found at the head of these trenches, which are known as chasms, glens, and gorges. The gorge of the Niagara river is the most famous example of its kind in the state. Ausable chasm and Watkins glen are widely known. The "high banks" of the Genesee are of the same nature. The broad valley of the upper Battenkill continues southwestward, and is occupied by the Owl kill; the Battenkill turning north through a deep gorge to the valley of White creek. The Chemung abandons an open valley that leads to Horseheads, and follows a narrow valley to Elmira. The steep walls and small width of these trenches and gorges unite with the falls and lakes in proclaiming that many streams of New York have, in not very ancient time, been turned along new courses, where they are now at work with manifest signs of youthful behavior.

Features of lake and sea coast. The irregular shore of Lake Champlain exhibits a number of *headlands*, *peninsulas* and *islands*. *Deltas*, built of the waste of the land, are seen at the mouth of Ausable river, at the head of Cayuga lake at Ithaca, and at the mouths of many small streams in the Finger lakes: the outflowing branches or distributaries, characteristic of large rivers or deltas, are seen in the case of the Ausable. *Cliffs*, cut by the waves, are well seen at many points on the coast of Lake Ontario: for a number of miles east of Niagara river, the low Ontario plain is cut off in a low cliff. Bars, often called "beaches," are developed in great length off the southern side of Long Island, as Rockaway beach: these are built for the most part of sand brought in from the sea bottom by storm waves. On the Ontario shore, north of Rochester and at the east end of the lake, cliffs and bars alternate, and here the bars are largely composed of the waste from the cliffs: the long curved-shore line at the east end of Ontario is a beautiful example of accordant development of cliffs and bars. In some cases, islands have been tied to the mainland and thus converted into headlands, by the growth of bars; as Cumberland head, Lake

Champlain. *Dunes*, built of sand heaped by the wind, are formed on many bars: dunes are found also on the ancient delta of the Mohawk, in the Hudson-Champlain estuary west of Albany.

Bays, occupying re-entrants of the shore line, are well seen on Lake Champlain, and on the north side of Long Island. Estuaries, the lower part of rivers, entered by tides from the sea, are found on small scale in the valleys of the upland on the north side of Long Island sound. Most of these examples of bays and estuaries result from a depression of the land with respect to the sea, whereby the sea water has entered the lower part of the former river valley. The Hudson river, below Albany, lies in a slightly drowned valley; the great breadth and volume of the river is out of proportion to its drainage area. In a strict sense, it is an estuary, not a river. The Niagara below Lewiston is similarly increased in volume by a slight drowning of its valley; but as there are no perceptible tides in Lake Ontario, this cannot be properly called an estuary. It might be called a "drowned river," if such an expression were permissible. *Lagoons* are enclosed inside of off-shore bars, as Jamaica bay, Long Island; they are often partly filled with *tidal marsh*. (*Tidal inlets* are often held open across bars by the flood and ebb currents.) (On the Ontario shore, the water bodies inclosed behind bars are generally called ponds, as north of Rochester.)

Old shore lines, formed when the St Lawrence outlet of Lake Ontario was blocked by the melting ice sheet of the glacial period, may be distinctly traced at various points. Some of these stand at a higher level than Lake Erie, and may be followed for many miles on the Erie plain between Buffalo and Dunkirk: they are chiefly off-shore bars. Others are nearer the level of Ontario: they are both cliffs and bars, very similar to those seen on the lake shore to-day, and may be traced from Niagara river some distance inland from the southern and eastern border of the present lake.

It is of course not to be expected that the scholars in any single school can directly observe all these various geographic features; but every school in the state is within reach of a good variety of them. Careful exploration is well repaid by the better teaching that results from it, and by the interest that it arouses among the scholars. By the observational study of accessible features, a belief in the reality of inaccessible features may be developed; and in this way geographic teaching may be made much more vivid than when based on book-work alone.

Physiographic relations. Even in the earliest stage of observational work, suggestion should be made of the physiographic processes by which the observed geographic forms are explained. At first, these suggestions and explanations should be very simple; but they may be carried to a good degree of advance during the grammar school course. It is extremely desirable that these explanations should be introduced in such a way that the scholars shall be persuaded of their essentially simple character. They should be free from laborious argument or demonstration.

A number of physiographic explanations have been briefly introduced above. The following headings will give further indications of the character of this part of the work.

On the sharper summits of the uplands, ridges, and hills, note how definitely the crest lines serve to divide the rainfall between the adjoining drainage areas. Contrast this with the indefinite partition of the rainfall on plains. Note how large a share of rainfall is discharged from steep slopes of rock or till by surface streams, and how large a share sinks into the ground on sandy

plains. Compare the discharge or "run-off" in winter, when the ground is frozen, and in summer when it is pervious.

The slow weathering and wasting of all land surfaces should become a familiar fact in early school years. All slopes should be regarded as surfaces down which the waste of the land creeps and washes to the streams. The steeper the slope, the more active the movement of the waste; on very steep slopes, waste is carried away as fast as it is loosened, and bare rock ledges are left. On flat surfaces, waste moves away so slowly that the product of weathering (soil) may accumulate to a considerable depth. The movement of waste almost ceases in dry summer and in cold winter weather; it is more active during rains, and at the time of freezing and thawing in fall and spring. In valleys, much accumulated waste (chiefly glacial drift) is to be seen, waiting for the streams to carry it to the sea; a beginning of this transportation has been made where ancient flood plains are trenched and terraced. Streams should always be considered as bearing a larger or smaller share of land waste towards the sea. Notice how greatly the amount of waste borne along by streams varies, increasing during rain storms and thaws, and decreasing in droughts and cold spells. Flood plains consist of land waste, temporarily laid down by the streams at times of high water, but eventually to be taken up again and carried along further, ultimately reaching the sea. Ponds and lakes are so many filters that allow the waste that is washed into them to settle, and discharge the water purified; hence their value as reservoirs for water supply to cities and villages. Deltas may often be seen growing where streams enter ponds; many marshes, swamps, and meadows represent the more or less complete extinction of shallow lakes by filling the head and bottom and by cutting down the outlet. Upper Ausable lake has been diminished by the growth of marshy meadows at its (southwest) upper end.

Furthermore, the valleys are so many trenches,⁸ cut down by the action of the streams, and widened by the wasting of the slopes. Note how thoroughly and actively the work of dissection is going on in the mountainous districts, where the valleys radiate in all directions from the higher masses, as from Rocky Peak ridge in the Adirondacks, and from Hunter mountain in the Catskills. Many hills are merely portions of the highland or plateau, isolated by the growth of the valleys. The valleys were certainly deeper before the drift gravels and sands that they now contain were deposited in them. Falls and rapids occur where resistant ledges have not yet been cut down by the streams.

The dimensions of the bars and cliffs on the sea shore or lake shore give the best indication of the period of time through which the land has stood at its present level with respect to the sea. Headlands on Long Island sound are ridge-like portions of the coast lowland, projecting between drowned valleys, on either side. The islands (thereabouts) are hilltops, or grouped hilltops, isolated by the drowning of the lower land around them. As the understanding of the origin of geographic forms is increased, it will be found greatly to aid the appreciation of descriptions of distant regions. In this way, teachers and scholars will come to place high value on past geographic conditions and on long-acting processes, not merely as supplying information of intrinsic interest, but as serving greatly to increase their perception of the existing elements of earth form.

The reason for the introduction of physiographic explanation into elementary work may be concisely stated. Old-fashioned geography was empirical, exercising the memory but not the reason: modern geography should be rational, calling in the understanding to aid the memory. Physiography calls for the rational treatment of the forms of the land, and by giving meaning to them it makes

⁸ There are no valleys in New York that have been formed by bending the earth's crust, such as the narrow troughs that lie between the arched ridges of the Jura mountains in Switzerland or such as the broad valley of California between the uplifted Sierra Nevada and Coast ranges.

their retention in the memory much easier than when they are meaningless. Like all other studies, physiography has its elementary and its advanced phases: the elementary phase of the subject should be presented to young scholars as a part of elementary geography.

Relation of the local sheet to the state map. When local observation is well begun, search should be made on various sheets of the state map for features similar to those locally observed, but occurring in other parts of the state, beyond the reach of immediate observation. Comparisons should be instituted between the local and the more distant examples; this exercise again affording excellent practice in English composition. *It is in this division of the work that the state map as a whole most usefully supplements the use of the home sheet.* The acquaintance thus made with the geographic features of the state will be found most useful in giving just ideas concerning the geographic features of many larger parts of the world.

The nature of local geographic features having become clear from local observation and appropriate explanation, and the representation of these features on the home sheet having become familiar by comparing the observed facts with the map, the scholars are well prepared to reverse the process and infer from non-local sheets the character of distant geographic features, that lie beyond direct observation and have no representatives on the home sheet. Thus scholars who may observe an inland lake, map in hand, can afterwards better infer from other map sheets the character of the ocean shore line. Those who dwell on the central lowland and ascend the low hills of that part of the state, can afterwards better appreciate the more hilly form of the higher upland along the southern border.

The more thoroughly these exercises are carried out, the better equipped will the scholars be for all late geographic study. The mental images aroused by geographic terms will be vivid and accurate. Maps of foreign countries can be better read. The geographic scenery of history will be truer to nature. All the effort that the work may cost will be repaid by the close approach that it enables the scholars to make toward the real facts of the world.

Accurate ideas concerning the geography of the state are gained in this way; the study of geography becomes essentially scientific in character, as it should be. The information gained is useful; the training gained is educative. It is manifest that familiarity with the features of the home district gained by actual observation is the essential foundation for work of this kind.

Relation of surface features to occupation by man. From the time of the first occupation of the state, its people have been constantly influenced in their selection of places for settlement, in their subsequent purchases of land from one another, in their occupations and in their movement from place to place, by the geographic features that they observed about them. There has been a reason, a cause, for every item of boundary, location, movement, or industry; and a large share of the reason or cause has been geographic. The scholars should therefore be led during the progress of the observational, physiographic, and comparative studies above outlined, to perceive the character of the various geographic influences by which settlement, occupation, etc. have been determined.

Nearly the whole of the state was originally wooded. Determine what parts of the home district are now wooded, now cleared (cultivated or other-

wise used); what parts, once cleared, are now overgrown again. How do form, height, amount of rock ledge, soil (gravel, sand, clay, peat; wet, dry; deep, thin) and drainage affect the distribution of cleared and wooded parts. Let the teacher give examples of similar controls elsewhere.

Examine the manner in which the form of the land affects the location of roads and railroads; first in the home district, and then on various map sheets. Note the general parallelism of roads and drumlins in Wayne county; and the adoption of old lake shore lines for roadways at many points in the western part of the state. Examine the various railroads that run southward through the dissected plateau, and see how carefully the deepest valleys or "passes" between north and south flowing streams have been sought out. Consider the condition of communities to which access is gained by level or hilly roads; by roads alone, by roads and railroads, or by roads, railroads and waterways.

Houses are scattered or grouped in villages or cities. Study the relation of their situation to form of ground, height, slope, brooks, rivers, shore line. Consider the relation of location to industries, which in turn depend on geographic controls, often of a larger kind than are contained within a single state.

After local observation and study of topics of this kind, more extended study should be made by means of maps and books, as far as desired.

Apportionment of map work to the different years of the school course. It is manifest that the home field, the comparison of its features with those in other parts of the state, and the relation of all to human conditions, may be studied long without exhaustion. It is believed that careful attention to these fundamental parts of geographic teaching will lead to a better understanding on the part of the scholar of many other parts of the world than his native state. The following distribution of the work through the school course is recommended.

Local observation should begin with the earliest nature study. Geographic features in the immediate neighborhood of the school should be pointed out, described in the simplest terms, and named. Even if nothing but streets and houses are in sight from the school windows, this part of the work should not be omitted; but it can be pursued to better advantage in village schools than in large cities. The most elementary physiographic processes connected with rainfall and surface washing may be pointed out at the same time. Little original observation or description need be required in this stage. It is enough that young scholars make an imitative beginning in talking geography, as they do in talking English.

Identification of simple features, such as hills, streams, roads, in their representation on the local map, may be soon introduced. This corresponds to the linear and locative work above. It may be well to precede or to accompany this stage of the work with a few very simple exercises in drawing small outline maps from observation, but these exercises should never be made laborious. Time can be better spent in using the good map of the school district than in making an awkward and imperfect map of a small area.

Inquiry as to what lies beyond a hill or ridge may soon be excited by the use of the map, and thus the spirit of exploration makes its appearance. It should be cultivated as soon as the scholars are able to make field excursions of a mile or more. These excursions should always follow the lead of a route selected from the map, and they should always be used to give exercises in direction, distance, and height, as well as in form. Opportunity for this part of the work will vary greatly with the location of the school; but even in large cities the modern introduction of electric railways is now making class excursions a comparatively easy matter. Only in great cities, like New York, are field excursions hindered by serious difficulties. Teach-

ers are urged to attempt work of this kind as far as possible. The larger and older scholars in villages and small cities may often undertake short excursions alone, or in small parties, under their own guidance. Some work of this character, but of advancing grade, as outlined above, may be continued all through the grammar school, and with natural extension into mineralogy, physiography, botany, and zoology, through the high school also.

The beginnings of observation, identification, and inquiry having been made in the first year of nature study, all these phases of study should be continued in later years, with advance in quality and detail, and with the addition of new phases. When the study of geography is formally undertaken with a text book, special care should be taken to illustrate the topics in the text by local features, as far as possible. By a little consideration, the observations of previous years may be directed so as to provide an acquaintance with a good number of those classes of facts whose description is encountered in the early pages of the text book. Exercises in forms and surfaces (areal work), and in physiographic and industrial relations should accompany the progress through the text.

While inquiry as to the meaning and origin of geographic features should be encouraged and satisfied at all stages of study, systematic and scientific instruction in the physiographic chapter of geography is best left to the high school.

Preparation of the teacher. The best preparation for the teacher towards successful work of the kind here indicated is a grammar school course according to the above plan, extended by a course on physiography in the high-school, amplified by field and map study in several localities, and fortified by some geology if possible, in the normal school. Teachers who are now professionally at work without systematic preparation of this kind, and who wish to introduce observational and map work in their classes in geography, will do well to begin by familiarizing themselves with their school district at least, and with other districts if possible, by means of excursions, map in hand. The appropriate sheets of the state map form most instructive companions on a railroad journey.

All the various classes of work above outlined should become familiar by repeated experience. Excursions for practice may be made alone, if preferred; but if a teacher is well trained in general geography, and if she has established relations of harmony, confidence, and interest with her scholars, she can not do better than to invite some of the older ones to go out with her, so that she and they together may discover the character of this "new kind of map study." Frank confession of the novelty of the work and of lack of experience in it will not in the least lessen the esteem of the scholars for their teacher, provided the esteem is well founded in the first place.

Teachers may be assured that the studies here advocated, both observational and physiographic, are not inherently difficult. They are easily within the reach of young scholars, provided that the scholars are well taught. The work is difficult and obscure only when presented by a teacher who is not practically familiar with it. Teachers who have not already done so are urged to make a beginning in field teaching as soon as possible, and thus gain familiarity and experience in observational and rational geography before another year passes.

Lack of experience in the use of the state map in field teaching is, for the present, a necessary result of the unfinished condition of the map. When the map is much extended or finished and generally distributed, five or more years hence, a similar lack of experience will be interpreted, by those who understand the advance in the

teaching of geography now in progress, as the result of the neglect of the opportunities for self improvement that every teacher is in duty bound to use to the utmost. 15 or 20 years hence, it will be a reproach to the schools in which the younger teachers of that time began their education, if they do not bring from it an acquaintance with home geography and the geography of the state, such as the proper use of the state map in the grammar schools will surely develop.

APPENDIX

EXHIBIT No. 4.

NEW YORK STATE ASSOCIATION OF School Commissioners and Superintendents

PROCEEDINGS OF THE FORTY-SECOND ANNUAL MEETING OF THE
NEW YORK STATE ASSOCIATION OF SCHOOL COMMISSIONERS AND
SUPERINTENDENTS, HELD AT NIAGARA FALLS, JANUARY 5, 6, AND
7. 1897.

OFFICERS

President

ELLIS D. ELWOOD, Ilion.

Vice-Presidents

GEORGE G. ROYCE, Gouverneur. SAMUEL COSAD, Wolcott.

Secretaries

FERDINAND E. SMITH, Cortland.

CORA A. DAVIS, Whitesboro.

Treasurer

FRANK W. McELROY, Bliss.

Transportation Agent

GEORGE E. BULLIS, Oswego.

Committee on Legislation

ROLLIN C. FRANCIS, Chairman, Morrisville.

FRANCIS R. CLAIR, College Point.

CHARLES VAN MARTER, Newfield.

Local Committee

N. L. BENHAM.

PROGRAM

TUESDAY

Address of welcome, Thomas V. Welch, Superintendent of the State Reservation.

Response, Nathan L. Miller, School Commissioner, Cortland county.

Paper: "Supervision, its Importance and what it Involves," James S. Cooley, School Commissioner, Queens county.

Discussion: "School Exhibits at County Fairs," Merritt B. Hale, School Commissioner, Wyoming county.

Paper: "Qualifications for Rural School Teaching," Myron T. Scudder, Inspector of Regents' Schools.

Address: "The School Advantages needed in Rural Communities," F. A. Converse, Instructor at Farmers' Institutes.

Round Table Conference: "The Graded Course of Study," in charge of Leon O. Wiswell, Director of School Libraries.

Discussion: "The Enforcement of the Compulsory Law in Commissioner Districts," Winfield A. Holcomb, School Commissioner, Chautauqua county.

Address, Charles R. Skinner, State Superintendent of Public Instruction.

WEDNESDAY

Paper: "Some Ways in which our Schools may become more Efficient," Everett E. Edgerton, School Commissioner, Oneida county.

Paper: "What we aim to do in Drawing and what is being accomplished," Frank W. McElroy, School Commissioner, Wyoming county.

Election of officers.

Paper: "The State Library for Teachers," Mrs. Mary L. Kniskern, School Commissioner, Broome county.

Address: "School Law," Danforth E. Ainsworth, Deputy Superintendent of Public Instruction.

Address: "School Inspection," James L. Hughes, Inspector of Schools, Toronto.

THURSDAY

Paper: "The Opportunities which the Training Classes offer Commissioners," F. V. Lester, School Commissioner, Essex county.

Symposium: How shall School Commissioners be chosen and what Legal Qualifications shall be established?

Reports of committees.

FORTY-SECOND ANNUAL MEETING
OF THE
NEW YORK STATE ASSOCIATION
OF
School Commissioners and Superintendents

NIAGARA FALLS, JANUARY 5, 6, 7, 1897

Address of welcome by Hon. Thomas V. Welch, Superintendent of the Niagara Reservation:

I am glad to have the honor of being present on this event, and of having the privilege on behalf of our citizens of welcoming the association to the city of Niagara Falls on the occasion of its forty-second annual meeting.

We are justly proud of the State of New York and of what it has done and is doing for education, not alone within her own borders, but also for the influence which the Empire State has exerted for education in all the States of the Union.

Her educational associations are many and varied, extending from the school district to the regents of the universities, and the official care of the schools, reaches in an unbroken way from the school trustee to the Governor of the State, thus acting out the old maxim: "Put that you would have the State into the schools." Your association has a long and honorable history extending over nearly half a century. It has exerted a great educational influence. The annual meetings afford opportunities for an exchange of ideas, for comparison of methods of teaching, and methods of administration, of text-books and of courses of study. Innovations are weighed and the good are adopted and the bad are buried. All who visited the educational exhibit at the Chicago Exposition must have been impressed with the benefits to be derived from a comparison of the school methods used in different localities. The exchange of ideas in associations of this kind has happily enabled the new education to displace the old. It has given us natural methods instead of traditional usages; object lessons instead of rules. Henceforth we do not learn by formulas alone. At length we realize the great truth, "We learn to do by doing."

What one man (Froebel) did for humanity should cause us to remember that a great saint said if he had a dozen really detached men he would be able to convert the world. Froebel's detachment from all things but education gave us the kindergarten. A great educator has said: "The kindergarten embraces all of the true principles of education — all education up to the gates of heaven." I hold that sort of teaching is in the highest degree immoral which crams the heads of children with unusable pages of text-books. Every child loves nature — birds, flowers, beasts. Carry this love into the schoolroom. Bring the child closer to the thought of God and His creatures and that implanted desire to know more of His works will never cease.

The harmonious development of the body, mind and soul is the essence of the new education of to-day. As a layman I may be pardoned for calling attention here to one or two tendencies in education which many laymen deprecate. The first is the constantly increasing number of branches; the second the excitement and strain of frequent examinations as at present conducted. It is feared that the extended course of study is often due to the writers and manufacturers of text-books, and that the anxiety of little children concerning their examinations and standing in such a multitude of studies often results in physical and mental injury. In schools where such high tension and over-pressure prevail there is little or no time for those normal methods which allow children to develop co-equally, physically and mentally.

As a layman I may also be pardoned for expressing here the gratification felt by laymen at the growing sentiment in favor of manual training in our schools. Men who are educated to uselessness are legion in our land. Every child should be educated to work—to carry out the destiny for which God created it. Col. Parker says: "Manual labor is a means of spiritual growth, the foundation of clear thinking, sound imagination and good health, and that children are educated not above but below manual labor."

The aims of manual training, as given by Dr. Felix Adler, who has done so much to promote it, are: "Not merely to teach the three R's nor to enable pupils to earn a living, nor to endow them with accomplishments nor to make them merely intellectually efficient, but to build up manhood and womanhood, to train eye and hand, to develop the imagination, to give definiteness to elementary conceptions of geometry, to furnish the pupils with the opportunity of making their own physical apparatus, to inculcate the dignity of labor, to foster those moral habits which manual labor is specially calculated to produce."

Some one has said, "Education is that training of men which makes them free." It is the greatest of all arts to lead children to the true, the good and the beautiful. The demand for good teaching

was never so great as now ; for teachers who understand human nature and can develop the minds of children without promise of reward or punishment.

We are told to look for the great source of goodness, truth and beauty, to the thoughts of God in nature, and so it seems proper for you to hold a meeting of this association here on the brink of the great Cataract of Niagara, beside this exhibition of power and majesty. A portion of Niagara's power is now being used for the benefit of mankind, and our power-houses, sending the electric current to Buffalo and New York city are greater than Alladin's wonderful palace in magical achievements. There educators may see the high-water mark of electrical science.

The river gorge is an open book in which they may study the formation of the earth. They will see in the native forests on Goat island an object lesson to a people who are wasting their woodlands, and they will find in the beauty and majesty of the rapids and the falls powerful influences of refinement, education and religion. The cataract and its surroundings were acquired by the State for the gratification of a sentiment—the love of natural scenery. What a growth there has been in this love and how full it is of promise for the future of our race!

When all of the children of men will find delight in the sunrise, the sunset and the clouds of heaven, when they will enjoy the daily beauty of the leaf, the rock and the wave, and the glory of the firmament by night they will cease to love vice and wickedness, and the victory will be won because they will comprehend the thoughts of God in nature. It is toward this end all true education is tending.

We hope the deliberations of your association may be harmonious and beneficial, and that it may go on in its cause of honor and usefulness. We trust the members may have the opportunity of seeing the great power developments at this place, and that they may enjoy to the fullest the beauty of the natural scenery. And when you return to your various fields of labor we believe you will remember Niagara as a place having many wonderful features that appeal to the minds and hearts of those who are engaged in the great work of education.

Response by School Commissioner Nathan D. Miller of Cortland county:

It is my pleasant task, sir, on behalf of this Association of Superintendents and Commissioners to express to you their appreciation of your kind reception of us and we thank you for your kind and cordial words of welcome.

Your hearty greeting and the beautiful description that you have given of the natural advantages of this place and what you have said bearing upon the subject of education have put us at ease.

The stranger visiting your city for the first time may naturally anticipate seeing as one of your chief attractions the wonderful cataract which you have described. I am sure that no sooner does he arrive within your borders than he discovers many other attractions, and by no means the least of these is the kind hospitality of your citizens. We have heard that in former times your people were noted for the warmth with which they greeted the strangers within your gates and for the warmth with which they received whatever change the stranger might have brought with him. But in happy contrast to that ancient custom is the kind and cordial welcome that you have extended to us and your kind invitation to avail ourselves of this opportunity to study the wonders of nature in which this community abounds.

We are meeting primarily for the purpose of discussing matters of importance to the great interests which we represent. We certainly should not be true to ourselves as a body of educators, did we not avail ourselves of this opportunity to observe the very many wonders of nature about us, to study again the wonderful Niagara.

You have well described the educational system of this State. We have throughout the year very many gatherings, each serving a particular purpose and all indicative of the progress and of the activity which, as you have said, are characterizing the close of the nineteenth century in the educational world. Perhaps no other educational gathering so closely represents that most important branch of our educational system, the elementary schools, as does this. We come from all parts of the Empire State, and practically all the public schools of this State are represented. Here are assembled those upon whose high ideals and enthusiasm, upon whose devotion and well directed effort, upon whose faithfulness to duty, upon whose intelligent and conscientious supervision depend in a large measure the success of the schools of our State in which the boys and girls are to lay the foundation of manhood and womanhood, and for the cares and responsibilities of life and citizenship.

It has been said that beautiful Niagara, receiving the waters of the great lakes, flows on forever the same, unmindful of and unaffected by the snows of winter and the thaws of spring; that the marvelous power of the cataract which you have described remains always the same, neither lessened nor increased by rains or drouths. True it is as you have suggested, we are coming to understand the purposes of an elementary education to be the development of

power, the ability to do and to act, the building up of character in manhood and womanhood that shall stand up among the perils of temptation and live unmoved alike by the storms of adversity or by the self-consciousness of prosperity.

Of those schools which we represent perhaps none are so much in need of attention at this time as the rural schools. Here again we may draw another lesson from the remarks that you have made. Niagara has flowed on for ages upon ages filling the onlookers with awe at its wonders, at its sublimity and at the marvelous power of its cataract, and while it may be scientifically incorrect to speak of energy as being lost, yet through all these ages it would seem that that marvelous power has apparently accomplished nothing more than the wearing away of the rocks, or of filling the mind with inspiration at its grandeur and of bringing the thoughts of the beholder closer to nature and to its God; but as you have suggested, those of us who are here to-day can observe another of the marvelous triumphs of the industrial world in the harnessing of this natural power to the machinery of man. While to poetic minds this might seem a sacrilege, yet, as you have said, it is simply indicative of the tendency of the age, and as we consider this and the very many other achievements in the industrial world, we have small room for doubt but that the progress in educational matters has not made a like advance. The age demands more of us than it did of our ancestors and it may well be doubted whether the boys who leave the rural schools to-day at the age of 14 are as well prepared to meet the demands that will be made upon them as were their fathers or grandfathers fifty years ago. And so it has been that in recent years the attention of educators in whatever field they may be found has been directed to the rural school problem; the child is being studied; courses of study are being prepared and revised to meet suggestions similar to those which you have offered here and to meet other necessities. The training and the licensing of teachers have received special attention and it is true that very much has been accomplished in the last decade; but it may well be doubted whether the best which is possible will ever be done until a radical change is made in our present rural school system.

I need not suggest to the members of this association coming in contact as they do with every district and school of this State, that if they would but act in unity with a definite purpose, it would have a vast influence, not merely upon the schools under their immediate supervision, but more particularly in securing changes in the school laws of our State. If this body, composed as it is of members who are peculiarly situated to know the needs of our schools, who are supposed to possess at least some especial qualifications to understand these needs, can not agree upon something definite and

tangible, we can hardly expect our State legislators to do it. Very many of the changes in our school laws have been first conceived here and then carried out and the accomplishment of the purpose secured by its members acting with the Department of Public Instruction. But we can not rest upon our achievements. The progress of the age will not permit it. The demands of our profession prevent it. Pardon me for repeating a trite, old homily which is to the effect that one of the laws of progress is, that we must do better to-morrow than to-day, or else we do not do as well.

Permit me to express the hope that the deliberations of this body and the association with its members may not prove entirely without pleasure and profit to your community. We hope to leave this meeting with a feeling of having accomplished something for our profession. We shall leave it, I am sure, with pleasant recollections of the kind hospitality of your citizens and, sir, on behalf of this association, I desire to thank you for your kind and cordial welcome.

SUPERVISION — ITS IMPORTANCE, AND WHAT IT INVOLVES

JAMES S. COOLEY, SCHOOL COMMISSIONER, QUEENS CO.

Fellow Commissioners, Educators and Superintendents of the Empire State:

We meet, to-day, upon the threshold of a new year and of a new term. The record of the coming months lies hidden in the bosom of the future. These closing years of the nineteenth century, as, one by one, they come to us, like ships, deep-laden from some unknown shore, are richly freighted with events of greatest import to mankind.

We are living in "The Golden Age" of opportunity. Never, in all the centuries of the past, has there been a time more momentous than the present; never, a period so full of promise, so pregnant with power, peril and possibility as this.

"At no previous time in the world's history," says Dr. Johnson, in a recent essay, "have issues so many and so grave pressed for settlement, as those with which the restless spirit of the closing years of this century is already confronting the masses of the rising generation. The deeply-rooted foundations of social, industrial, political, and religious life are threatened with change. The subtle spread of socialistic ideas, as seen in the efforts to nationalize railroads and telegraphs, to regulate by law the rates and hours of labor, etc.; the revolutionary propaganda of anarchy; corruption, machine rule, church influence, and religious prejudice in politics;

reform in municipal administration; oppression of trusts and monopolies; adjustment of the relations of capital and labor through strikes, arbitration, and co-operative production; granting of suffrage to women; care of the unemployed and the insane; reform in marriage laws, dress and social usage; regulations of the liquor traffic; adjustment of currency and tariff laws; extension of the franchise; spread of rationalism in the churches; the movement toward church unity; adjustment of foreign relations—these indicate but a few of the problems upon which our boys and girls will ere long be required to express their will.”

Called, in the providence of God, at such a time, and under these circumstances, to be supervising officers and leaders of educational thought in this great Empire State, with its vast systems of popular education, its thousands of teachers and its millions of children and youth, a State which stands foremost among the commonwealths of the Union in wealth and in commercial importance, a consideration of the character of our work and of the responsibilities involved might well employ an abler pen than mine, and occupy much more than the brief hour allotted to this discussion.

When we realize that, with all our systems of free schools, our thousands of public and private institutions of learning, our free public libraries and an almost limitless multiplication of books, newspapers and periodicals, circulating in every hamlet, we are scarcely keeping pace with illiteracy, and that there are millions of people within the borders of our Union, in this, the last half of the last decade of the nineteenth century, who can neither read nor write, we may profitably ask whether there is not something more for us to do.

If it be true, as was so well stated at Chautauqua by our honored State Superintendent, Mr. Skinner, that our schools must be made thoroughly and altogether American; that every place where school is taught should be a nursery of American citizenship; that our social, political and moral ideas must be impressed upon the boys and girls, who are to be the fathers and mothers, the voters and the makers of laws in the years close at hand; that this is what will perpetuate the life of the nation in every home, and make the children feel that their country is worthy of the best their hands can do, their brains devise, their hearts desire; that this country needs men and women, trained after the American model, honest, faithful, courageous, pure, high-minded, Christian, scorning dishonesty, treachery, demagogism, impurity, baseness and infidelity as unworthy the man or the woman, the boy or the girl who belongs to the land in which we live; if all this be true, we do well to pause a moment, to gather fresh courage for the conflict and consider how we shall most successfully meet the issues before us.

The importance of proper educational supervision has long been recognized. The Hon. Newton Bateman, State Superintendent of Illinois, a friend and companion of Abraham Lincoln, said of county supervision, nearly a third of a century ago:

“It is the right arm of power in our system. It can not be dispensed with. It has done more than any other one agency to make our schools what they are, and its vitalizing influence is more and more manifest every year. Some of the counties have been almost revolutionized in respect to schools and education during the past year, and the county superintendents have done it. They have visited the schools, visited the parents, held institutes, addressed the people, issued circulars, written for the press, published reports, and mightily awakened and quickened the public mind. By their influence and efforts, districts have been consolidated, schools have been graded, superior teachers employed, courses of study perfected, controversies settled, schoolhouses built and furnished, and the whole aspect of educational affairs has been changed for the better.”

At the time these strong words were written, the county superintendents of Illinois were receiving \$3 per day for their services, and paying their own expenses.

Horace Mann's twelfth report, published in 1848, contains the following: “In my opinion, the State could do no wiser thing than to divide its territory into districts of convenient size and appoint a visitor or superintendent of schools for each section.”

Secretary Dickinson, of Massachusetts, said in 1877: “The employment of an experienced, intelligent leader, responsible for results, is as necessary in school affairs, as it is, and is acknowledged to be, in all other organizations and occupations.” The following year he added: “The necessity and economy of an efficient supervision are nowhere more apparent than when considered in connection with the public schools of a country. There is not an educator whose opinion has any part in forming that concurrent opinion which must be taken as a rule of action, who does not advocate a thorough and universal system of school supervision.”

George A. Walton, agent of the Massachusetts State Board of Education, in summing up the results of the famous examination of the Norfolk county schools, in 1880, said: “The conditions which make the schools poor or good are the same everywhere. Their failures result from poor organization, insufficient appliances for teaching, or from the teaching itself. These, in turn, result from inadequate support, or from ineffective supervision. This examination clearly indicates that more depends upon the supervision of the schools than upon all other causes combined.”

Dr. McLellan, inspector of schools in the Province of Ontario, in 1881, wrote as follows:

"In every complete organization of public instruction, supervision, systematic and thorough, is essential."

Superintendent Stone, of Vermont, referring to the testimony from Massachusetts to the value of supervision, said:

"If Massachusetts, with her trained teachers, her high compensation, her numerous cities and large villages, and her superb facilities, demands expert supervision, much more do the rural sections of our country. Nothing has done more for the public schools than skilled supervision, and nothing will do more. The new educational era is to be ushered in through close, expert supervision of the rural schools."

The Hon. William T. Harris, United States Commissioner of Education, than whom there is no higher authority, says:

"There is no other device in our school system that has done so much for the improvement of our schools, in organization and in methods of instruction and discipline, as school supervision."

In submitting to the Greater New York Commission the educational chapter of the proposed charter for the enlarged city, President Low, the chairman of the sub-committee on education, insists upon provision being made for careful and experienced supervision of the schools. He recommends that the School Board in Manhattan should be 15 in number, in the Bronx 5, in Brooklyn 15, in Queens 5, and in Richmond 5. In doing so he is not unaware of a certain sentiment in Brooklyn in favor of a large board of education; but as to this point he is constrained to follow the opinion of what he believes to be the best expert judgment of the country, that a school board of 15 is large enough for the largest city in the land. His personal observation and experience and judgment confirm this opinion without reserve. It is a part of the proposition to have the school board small, that the board of superintendents should be large; so that the visiting and inspection of the schools, which is now done in Brooklyn by a large body of laymen who give to the schools such time and attention as their personal tastes may dictate, may be superseded by the systematic visitation and inspection of trained experts who are paid for their services and whose professional reputations are involved in the efficiency of the schools. Accordingly, it has been provided that there shall be an associate superintendent for every 350 teachers, which would give to Brooklyn eight or ten associate superintendents, instead of three, while leaving the number of superintendents in Manhattan substantially what it now is.

With such testimony as this, which might be added to almost indefinitely, there should be no doubt as to the necessity and importance of skilled supervision, if our schools are to meet the requirements of the immediate future.

Did time and the limits of this paper permit, it would be interesting as well as profitable to study the history of the development of school supervision in America, from 1642, when the general court of the colony of Massachusetts Bay ordered "That the selectmen of every town in the several precincts and quarters where they dwell shall have a vigilant eye over their brethren and neighbors, and see that none of them shall suffer so much barbarism in any of their families as not to endeavor to teach, by themselves or others, their children and apprentices, so much learning as may enable them perfectly to read the English tongue and knowledge of the capital laws," down to the present time.

Suffice it to say, here, that such a study and a careful examination of the results attained under the school systems of the different States, clearly and indisputably establishes these three propositions.

First. Educational advancement has always been greatly aided by wise supervision, and the degree of that advancement has been in direct proportion to the amount of such supervision.

Second. Great harm and loss have invariably resulted from inadequate and unskilled supervision.

Third. The best educational results can not be secured under any system, which does not provide for careful, experienced and well qualified supervision of schools.

That these teachings of history are recognized in our own New York system is apparent from the language of the statute creating the office of school commissioner, which not only specifies certain duties of the school commissioner, and confers upon him certain powers with reference to the distribution of public moneys, the erection and furnishing of school buildings, the alteration and dissolution of school districts and the examination and licensing of teachers, but also requires him "to use his utmost influence and most strenuous exertions to promote the character and qualifications of teachers, improve the means of instruction and advance the interests of the schools under his supervision."

Either these words of the statute are a "glittering generality," or they impose upon us weighty and important responsibilities.

What, then, fellow commissioners, is implied in school supervision as it relates to your duties and mine?

And first, by way of exclusion, it does not consist in finding fault with teachers or in looking over school premises for the sole purpose of securing evidences of the indifference or inefficiency of school officers. Harsh and hasty criticism of school teachers and school officers will not inspire confidence in our ability to counsel and advise. "Seeing flaws is a good business or a bad business, according to your purpose in observing. An inspector of machinery or a corrector of faults does well to note the defects in order to supply what is lacking. But one who is trying to get the most

power he can, safely, out of a machine as it stands had better not trouble himself over what is lacking. It is enough for him to recognize and use what there is." If we have no better way to secure respect for our authority than by constant and indiscriminate fault-finding, our qualifications for our work are meagre indeed.

Neither should the arbitrary exercise of authority be a leading feature of the work of a supervising officer. It is just and proper that authority should be given to the commissioner by the statute, to be used when the circumstances of any case require it. But, in most cases, quite as satisfactory results may be secured by other methods. It is far better so to shape the public sentiment of a community that a popular vote shall determine the necessity of better school buildings or appliances, and direct their construction, than to issue a peremptory order of condemnation; more permanently useful to awaken a wholesome pride among the pupils as to the care of out-buildings and school property, than to threaten the trustees with a report to the State Superintendent of an unsatisfactory condition of these matters.

The writer has secured a universal compliance with the "Health and Decency Law" throughout his jurisdiction, and the sanitary arrangements have been changed for the better in more than one-half the school districts under his care during the past three years. In securing these results the imperative mode has been employed in but a single instance.

Neither has supervision been satisfactorily performed when the clerical work of the office has been completed. The apportionment of the State moneys, the compilation of abstracts of reports, the conducting and reporting results of examinations of teachers, the transmission of such information as may be called for from time to time to the State Department, and the answering of the many letters of inquiry received from teachers and school officers—all these are necessary, all are important, and should be attended to promptly and properly. But the supervision that is to benefit the schools, the supervision which Dr. Harris says has "done so much for the improvement of our schools in organization and in methods of instruction and discipline," is more than all these things for which no special talent or experience is necessary. Any person with ordinary business tact and a fair English education can attend to these matters without difficulty. And yet there have been commissioners, I fear, who did little else. The commissioner at whose hands I received my first license to teach used to say that he considered that he had fully earned his salary when he had figured out the apportionment of the public money for his district. He seldom visited the schools under his jurisdiction, nor do I believe they suffered much in consequence of his neglect.

On the other hand, supervision does not mean visiting schools

merely. I well remember the criticism passed upon a one-time successful candidate for the commissionership by an ex-teacher and town superintendent, one of those rare spirits whom thoughtful intercourse with nature and a more thoughtful acquaintance with the best literature had trained to unusual acuteness of perception. "The more of such supervision," said he "as that man can give the schools, the worse off they will be." One commissioner of my acquaintance, some years since, used to combine fire insurance and school visitation, spending, sometimes, several weeks upon his trips to remote portions of his district. As the insurance was his chief employment, it may well be supposed that it received the greater share of his time and thought. This man held the commissionership for several terms, but from a personal knowledge of the condition of things in many parts of his district, if the county superintendents of Illinois had done no better work than he, Superintendent Bateman would never have said that "the county superintendency is the strongest living element in the common school system of the State, and is more closely identified than any other with the progress and development of that system in the future."

Said an experienced and successful teacher in one of the smaller cities of the State, a graduate of one of our best State Normal Schools, a woman of culture and refinement, "I am ashamed and humiliated when my principal visits my room. He insults my intelligence by spending the whole time of his visit in gossip, small talk and idle jesting, as if I was incapable of being interested in anything higher or better." Unless our visits are productive of better work, unless we can be the means of securing some change for the better, unless the teacher is inspired with a higher conception of her work, and the pupils made to value more highly their opportunities, and are led to resolve to strive a little more earnestly to become true men and women, our presence in the school-room is an unwarrantable intrusion, and we have no business there.

Once more we shall not be wise in our supervision if we judge all schools and all teachers by a single standard, if, as is true of many of us who have been teachers, there is a strong temptation to measure schools and teachers by ourselves, and to be impatient of methods with which we are not familiar or which we have found unsuccessful in our own hands. But circumstances differ. Methods and devices which are unsuitable for the conditions existing in one school may be entirely proper elsewhere. In many cases our way is no more likely to be right than some other way, and means and methods should always be judged by results. Dr. Walter B. Gunnison, principal of the new Erasmus Hall High School in Brooklyn, and well known as an educator in the eastern part of our State, said, upon a recent occasion:

"I believe that a system is made for the schools, and not the schools for the system. I apprehend that there never was a time when we were more in danger from the mania to centralize everything than to-day. Because an army can be made more effective by the application of a system uniform in all respects, because a factory in which we turn out the many necessities of life must be run according to some fixed system if it is to be efficiently run, it is urged that our schools should be run in the same way. I can only denounce this view and urge the one thought that true education seeks to emphasize the individual, and there is no such thing as a uniform education. We do not want the department store idea in our educational system. Let there be unity in system, but the greatest diversity of application."

But supervision has its positive side as well. Etymologically it signifies "to oversee for the purpose of direction." With a thorough knowledge of the ends to be attained and of the roads leading thereto, to look down upon the field of operations, and, in spirit, or by actual presence, direct, advise, restrain and urge forward the varied forces that are in action thereon. To do this successfully implies skill and experience—possessions that are not to be had for the asking or secured without effort. If supervision, in the Empire State, is to compare favorably with that of the other commonwealths, if it is to be of a character commensurate with the demands of the hour, some provision must be made by which this work shall be done by skilled and trained officials. This expression of opinion upon this subject may not receive your unanimous approval. But if the work of supervision is so important, if the results obtained are so closely related to the character of the supervision as has been stated, no other logical conclusion is possible or proper.

In his last report, Superintendent Skinner says: "Without doubt the weakest point in our school system to-day is along the line of supervision. No amount of supervision from this Department will supply the lack of intelligent supervision in the various localities on the part of commissioners. If it is desirable to insist upon a certain degree of qualification for a school teacher in the humblest district of the State, it would seem that there is no question that the superior officer, clothed by statute with such extended powers, ought to be a person possessing some fixed qualifications for the performance of the duties of his office."

Personally, with the advantage of a college education, nearly ten years' experience as a teacher, several years experience as a school trustee and a natural relish for school work, I find, constantly, that I fall far short of my conception of what I should accomplish, along the line of supervision, because I have had no special training or preparation for that work.

Said Secretary White, of Massachusetts, in 1870: "No matter how lavish the expenditure of money, and how well appointed and even elegant the schoolhouses, how ample the provision of books and every needed appliance for illustration, still, if there be weakness and incompetency in the supervision, the teachers will also be incompetent and ill-assorted, the schools will be without classification and in disorder." On the other hand, "If prepared for his work, the superintendent is a thorough student of the science and art of education, of psychology with special reference to child study, of applied pedagogy, and of the aims and work of our great educational reformers, he has had large and successful experience in teaching. He has an intimate acquaintance with the best schools of the day. He attends educational conventions, institutes and summer schools; in short, he keeps abreast of all advanced educational movements. He must be progressive, enthusiastic, ready to investigate, but not always ready to accept every new idea. He should be versed in the proper construction, repair and furnishing of schoolhouses, together with the best means of lighting, heating, ventilation and providing other sanitary arrangements. Where economy is to be considered, he should be able to use a wise discrimination, and to suggest inexpensive methods of securing the proper results."

In the proper exercise of his functions, the supervising officer has to do with four classes of individuals: Trustees, teachers, pupils and the public.

In his relations with trustees and boards of education, he may do much to enhance the educational interests of the several school districts under his jurisdiction. If he secures their respect and confidence, and they feel that he is in sympathy with them, they will be glad to listen to his suggestions and prompt to comply with them. The position of school trustee, in many districts, is not an enviable one, and the commissioner or superintendent who understands the oft-times thanklessness of the office, and who endeavors to assist the trustee and to lighten his burdens, will always be appreciated. I have been many times during the past three years surprised and delighted by the grateful recognition that I have received from trustees and boards of education. Their homes have been thrown open for my entertainment, their horses and conveyances have been placed at my free disposal, and the hearty grasp of the hand has evidenced the sincerity of their regard. In dealing with trustees my experience has been that, as a rule, there is no difficulty in securing all reasonable and necessary improvements, if I take the proper course, and convince them that I am actuated only by what I believe to be my duty to the children of the district.

Between the commissioner or superintendent and the teachers, there should be the most cordial and pleasant relations. "Teachers

are workers," some one has said, "they can not well be watchers. It is the special duty of the superior officer to watch over teachers, that he may help, encourage, counsel and criticise them in their work." Here is where the tact and experience of the supervising officer is most needed. He should be able to detect the unworthy teacher, and secure his removal, quietly and without injury to the school; to encourage the disheartened and, many times, over-burdened teachers; to discover the difficulties under which such ones are laboring and in consequence of which they are failing of success; by wise suggestions and by bold but tender criticisms, to secure to every teacher the greatest success possible under the circumstances. In all his dealings with the teachers he should never lose sight of the personality of each one, nor forget that the instructor is more than the instruction, that, as Drummond puts it, "What we are stretches past what we do, beyond what we possess." Some one has written, "It is better to find a man than a talent," and the true-spirited commissioner is always looking beneath the work his teachers are doing for the manhood and the womanhood that is impressing itself, daily and hourly, upon the hearts and lives of their pupils. Nothing in connection with my work has given me more pleasure than the expressions of gratitude which I have received from teachers whom I have helped and encouraged. For the purpose of knitting more closely the relations between the teachers and the commissioner and thereby causing the teachers to realize more vividly the unity of our system, I have sent out, from time to time, circulars of inquiry, to be filled out by the teachers and returned to me. In this way, I have secured information as to the observance of Arbor Day and of the anniversaries of Lincoln and Washington; as to the classification of the schools and the assignment of assistant teachers; individual impressions and criticisms of the institute and many other matters of interest and importance. I am fully satisfied that the results of all these communications between teachers and the commissioner have entirely warranted the extra time, trouble and expense involved, and I would urge others to "go and do likewise."

Briefly, in his relations with the pupils, the supervising officer is to consider their requirements and welfare as paramount to all other interests. However much circumstances may seem to indicate to the contrary, the moral, intellectual and physical well-being of the thirty, forty or fifty children should be considered as of more consequence than all else besides. If the building is unsuitable, the lighting injurious to the eyes of the pupils, the teacher using improper methods of instruction or discipline, there should be no hesitancy in seeking, as soon as possible, to bring about a change for the better. Emerson says: "The chief want of life is somebody who shall make us do the best we can." In his in-

fluence upon the children and youth, as he goes from school to school, the commissioner may do much to inspire them to do their best. Above all, should he recognize the fact that every child has an individuality of its own, that education is a process of development, rather than one of pouring in or of building up, and that cramming for an examination is not teaching.

In his intercourse with the people of the various communities of his jurisdiction, the wise commissioner will show his own interest in all educational matters, and will endeavor to impress upon all with whom he comes in contact, the importance of good schools and the advantages of a thorough education. Not that he is to be forever "talking shop;" but by his dignified and earnest manner, he will add the weight of his influence to the forces that are up-building and ennobling. He may also do much to interest the parents and the taxpayers in their schools. Reports can be prepared and circulated; public meetings held; parents and friends encouraged to visit the schools, all of which will awaken interest and direct attention to educational matters. In every district, the school, so far as possible, should be made the literary center of the community, and every man, woman and child in the district should be interested in its prosperity and success. By wise and judicious counsels, many times, the commissioner may prevent serious dissensions, and harmonize conflicting opinions. As all such district quarrels do injury to the cause of education, the watchful officer will do all in his power to avert them. I know of a small country district where the contention, recently, over a proposed change of site was so bitter that it will be years before the harmony that prevailed previous to this difficulty can be restored. I believe the commissioner was at fault in that he made no attempt, so far as I am aware, to prevent the issue.

Inasmuch as improved school facilities and better teachers cost money, the tax-payers should be appealed to in a plain, practical manner. Approached in the right way, most communities will do all that is necessary and proper for the education of their children. Judging from my own experience, I believe that commissioners might accomplish much more than they now do in the way of school improvements, by fair and candid appeals to the good sense and honest pride of the public.

There is another matter that should be mentioned here, in connection with the relation of the supervising officer to the people of his district, and that is the question of compensation for his services. In his last report, our State Superintendent, in recommending the adoption of some measure requiring an educational qualification on the part of candidates for the office of school commissioner, said: "I am convinced that the Legislature ought not, and will not, increase the salary of commissioners until some pro-

vision of this character is insisted upon." However much we, who are serving the people in this capacity, may realize the insufficiency of our compensation, we must convince the people that our services are of more positive and permanent value, before they will willingly grant our requests for larger salaries. In one of the counties of the State, the two commissioners, both of whom were re-elected, applied, a few weeks since, to the board of supervisors, for \$200 additional compensation, the amount heretofore allowed them by the county being \$400 each. A hearing was given the commissioners, but their application was laid upon the table indefinitely. Referring to this matter, a writer in a local paper uses the following language:

"The request of the school commissioners for an increase of \$200 in the amount allowed them for expenses is being sat upon by the general public about as hard as any proposition I have ever heard of in official circles. I find by talking with people from different sections of the county, and pretty well-posted people too, that it is not generally known that the commissioners have been getting as much as \$400 in addition to their salary of \$1,000, and, therefore, the request that the amount be increased to make a total of \$1,600 appears all the more extravagant.

"The majority of people with whom I have talked think that the school commissioners get enough and that \$400 ought to cover their traveling expenses and leave them \$1,000 as a net income. They argue that the school commissionership was never designed as an office upon which a man could solely depend for his living, and fail to see how the duties of the office demand all the time of the commissioner, as is claimed. It is contended that former school commissioners gave the county good service without allowing the performance of their official duties to interfere with their private business to any great extent. The office was regarded as a good thing to run in connection with various business enterprises, and has always been eagerly sought after by men who had no idea of abandoning their private business in order to take it and well perform the duties required of them.

"All this is said and a great deal more, and while there are many who agree that the laborer is worthy of his hire, there is a feeling everywhere manifest that the school commissioners get pay enough."

However thoroughly and conscientiously these commissioners may have performed their duties during the last term, it is very evident, that the people of that county, if this writer has correctly represented their opinion, do not yet understand and appreciate the value and the necessity of proper and skilled school supervision.

Thus, in rude speech, have I endeavored to outline somewhat of the work committed to our hands. The field is wide, the task is

arduous, the compensation meager in the extreme. But here is the supreme test of our work. In assuming the position of supervising officers, shall we be found among the artists in the world's great studio, or merely artisans, copying, as best we may, in slavish toil, the models of others? In view of the importance of our work in the vast educational field, can we afford to consider the mere question of dollars and cents? Did Phidias, Thorwaldsen or Michael Angelo carve their matchless statues at so much per cubic foot? Did Rubens, Titian or Benjamin West paint their immortal pictures by the square yard? Were the unrivaled symphonies of Mozart, and Beethoven composed for gold, or did Milton and Shakespeare write their world-renowned epics at a penny-a-line? All these were true artists, in their vocations, and their work is imperishable. May we not emulate their examples, and put so much of ourselves into our work that many lives may be made better for our influence upon them? Let us remember, that "It is better, like Arnold or Mark Hopkins, to lead by the hand a few men to the tree of life, than to point a multitude to the woods of knowledge."

Have we, any of us, thought of ourselves as citizens of the grandest republic the sun ever shone upon, the ripest fruit of modern civilization, and the truest exponent of civil and religious liberty yet given to man? A republic whose mission it is to conquer the wide earth for God, and, by what Dr. Bushnell called the "out-populating power of Christian stock," solve the dark problems of ignorance and heathenism, scatter forever from earth's gory battlefields the lurid clouds of war by the glad sunlight of peace and arbitration, and stamp the impress of our national character upon all mankind.

Are we sufficiently awake to the dangers which threaten this fair land of ours? Dangers from intemperance, from materialism and socialism, from ignorant and pauper immigration, from the strongly intrenched forces of the saloon, the mutual jealousies of the mighty forces of labor and capital and the rapidly increasing and demoralizing influences of our great cities.

In view of all these considerations, shall we not strive earnestly to rise above all petty narrowness, all unseemly haste to secure what, to our individual conception, may seem so imperative? To be supervising officers to-day, means more than ever before in all the history of educational progress; means that we must look over a broader field than in the past, must see more upon it, and, seeing, use every means at our command for the universal welfare. We must be broad-minded, sensitive to many interests, ever seeking a wider scope and issue. Ceaselessly should we endeavor to declare the truth under new conditions and to apply it to new needs.

Remembering that it takes a great deal of work to do a very little good in this world, and a great deal of experimenting to score

one success, we must not be discouraged if the progress seems too slow.

The ceaseless roar of yonder cataract well typifies the ever onward flow of human history, while the ever-receding rocks, over which the mighty torrent pours, speak to us of constantly changing conditions. What a spot to gather inspiration for our work and from which to go forth to duty!

DISCUSSION OF DR. COOLEY'S PAPER

F. R. Smith.—There is one thing that the reader presented that seems to me we overlook in rural school supervision; that is the question of placing a teacher where she can do effective work.

I do not see why some authority should not be given to commissioners, whereby they can place teachers as a city superintendent can, and where they will do the most good.

There is one other point that I want to call up, and that is, why is it that the boys who have grown up and spent their early days in these little red school houses all over the country are all boys that are most noted, and at the head of affairs in this country, with the miserable supervision and poor teaching that they have had in these schools? You may say that it is not so, but I say to you that it is so and that statistics will bear me out. Mr. Wheelock's paper at Oswego a year ago will sustain that statement. If you will follow up the lives of prominent men in affairs, you will find that of the Governors of the States only one out of 10 is a city-bred boy. So it is with the judges of the higher courts. I want to know why you are so anxious to bring the country and country schools under a condition that has not produced any particularly good results in the cities?

Another thing that I want to bring to your mind is, that the class of schools depends almost entirely upon the class of teachers. I would not give a red copper cent for the best system of supervision, for the best course of study, for the best education, unless the teachers have some of those faculties, natural, divine, I don't care where they come from, that will enable them to aspire, will create in them an interest to get on to be somebody. If you put such a teacher in the schools I would dismiss supervision, you might bury it or give it away, or let it run a paper.

Superintendent Skinner being called upon by the president said:

Mr. President.—The whole question of education, no matter from what standpoint we view it, may be divided into two parts: First, good teaching. Second, good supervision. The work of education has been so planned as to delegate to central authorities power to control and supervise the work of the schools, and

the first duty of a supervising officer, whether he be a superintendent of schools of cities or villages or a school commissioner, is to be an inspiration to those with whom he is associated. If you will read the general school laws of the State, which apply to school commissioners, their powers, their duties and responsibilities, I believe that you will realize the important place of school commissioners in the school work of our State. The spirit of encouragement and even the spirit of criticism, when that criticism is given in a kindly manner, will help true teachers to do their work in a better way, and in turn become an inspiration to the pupils under their charge. All education, whether in the primary school or in the university, is a farce when it does not lead pupils and students to obtain higher views of life. All education is weak which does not lead to noble manhood and womanhood, and to the highest form of citizenship. The inspiration which teachers receive from a commissioner or superintendent who has the power to give it is one of the greatest pleasures as well as one of the greatest benefits of that teacher's life.

The question of gathering small communities into a large one is a great problem. Something must be done to eliminate the weak rural school. There must be enthusiasm as well as inspiration in the school-room, and the greatest stumbling block in the rural school problem is the fact that we have to-day in the State of New York 4,000 school districts, where the average attendance last year was less than 10. You must agree with me that no system of education can be carried on successfully under these conditions. In other States they are recognizing the drift of population to the cities, and the absolute necessity of the transportation of pupils to the larger schools of the villages and towns. The time is not far distant when we must accept the situation in our own State.

Commissioner Royce, St. Lawrence county.—The words of Superintendent Skinner have given me a great deal of comfort and inspiration. I am very glad, indeed, to hear him say so much in regard to the small district schools. I find it very difficult, when I enter a small district school, where the schoolhouse is cold, with only two, three, four or five, and, in some instances, not a single pupil — I find it hard to inspire the teacher to do good work. You may ask why we have these small schools in my district. I have consolidated them wherever I can. I have let the old schoolhouses stand for the reason that if new schoolhouses are built, they may stand in the way of the system which we are anxiously waiting for the Legislature to give us.

In regard to intelligent supervision, it is necessary in this work to have a good, sensible trustee. One trustee told me: "I have done all I could for the school. I have hired three different

teachers." He had started in with an exceptionally good teacher for the fall term. For the winter term he got another one for 50 cents a week less, and for the spring another one for \$1 a week less, in each case getting a poorer teacher.

I know that we have many teachers who love their work, and we have many more who do not realize the responsibility which the profession of teaching imposes upon them. I do not know how I can inspire them when they have only four or five pupils. I have talked with the teachers in regard to this, and they tell me that they fairly hate themselves for teaching in these small schools; that there is not enough to do to keep them active. I think our poor schoolhouses have something to do with this. It is a fact that to-day we have better teaching and better teachers than we have ever had. Yet the fact remains that the boys leave the district schools earlier in life than they used to and attend the village schools. I believe this can be overcome by consolidation of the districts and the transportation of the children to the larger schools, and then we will have a surplus of teachers. In my district I do not have enough hardly to fill my schools. If we had a surplus of teachers, I could say to an intelligent trustee, such and such teacher will teach you a good school; but now I have to say, Miss So and So is a third grade teacher; you can have her.

In my district it has been said that all a commissioner can do is to drive past the schoolhouse and salute the American flag. I do not think any one can expect good, intelligent supervision under such conditions.

Commissioner Howell.—It did me good to hear the kind words of our State Superintendent. It seems to me, if I have observed anything or learned anything in the years of my experience, it has been this, that in supervising these small schools I must make the teacher feel that her work is important, and that I, as commissioner, sympathize with her, and as I speak in that school I make the boys and girls feel, in the remarks I may make, that their work is not less important than that of the boy who attends the university or the village school.

I can not quite agree with the thought that the Superintendent advanced of getting our boys into the city or the larger villages. I say, God forbid it, if my boys shall have to pass by the doors and through alleyways that we pass to get there.

I believe that we have those who are not as attentive, those who are not, perhaps, heart and soul in earnest in this matter, but I am conscious that there is a desire in the heart of every one for good. With such a Superintendent as we have, it seems to me that we ought to catch inspiration here.

SCHOOL EXHIBITS AT COUNTY FAIRS

COMMISSIONER MYRA L. INGALSBE, WASHINGTON COUNTY

Dr. Harris says, "The main value of an education now-a-days is to give the pupil the power of himself doing an endless variety of things which, uneducated, he could not do." The training of the eye in observing facts, the training of the hand in the expression of the knowledge of facts form important functions of the schools. Theoretically, knowledge is sought for love of knowledge, practically, it is sought in anticipation of rewards. Can you expect the child to be more of a philosopher than the man?

It seems unnecessary for me to discuss here the value of a school exhibit; its value as a means of education or its value as an incentive alone.

I am no believer in a show exhibit which is compiled as the result of five or six weeks of rushing work at the close of the school year, and which consists of the best efforts of the pupils most skilled in exhibit work. I am a firm believer in an exhibit which is compiled as the result of one year of school work and which consists of the regular paper work of the school gathered weekly throughout the year. Thus quicker eyes, defter hands, greater zeal, and better judgment will be developed upon the part of the pupil and individual criticism and guidance received. Such an exhibit is feasible for even every district school and such an exhibit seems to me to be the ideal exhibit.

In preparing for an exhibit careful thought should be expended upon outlining the premium list. With the best of efforts each exhibit will disclose errors in said list. The list should be revised yearly and revised only after consultation with the principal of the graded schools and with the most progressive district school teachers. Thus principals and teachers will become interested in the exhibit work and commissioners will receive valuable suggestions. Exhibit work, for the convenience of the visitor should be arranged by grades, each pupil's work, if necessary upon account of space, compiled into book form. Exhibit day should be a reception day, teachers receiving parents and friends of the school and explaining the work of their own grades. Thus, a parent can mark the progress of his child, in a certain direction, throughout the school year; the child's average as compared with that of other pupils of the same grade can be estimated, parent and teacher can interchange suggestions as to future work for the child, pupil's tendencies noted, mutual interests aroused and the most cordial relations established between parent and teacher.

Annually for four years the Washington County Agricultural society has held an educational exhibit in connection with the county fair. The board of managers generously give the use of a building,

furnish the printing, offer \$150 in premiums and engage an expert from out of the county as judge. Four years ago, at the first exhibit a space 10 by 15 feet was assigned the educational department. For the past two years an entire building with wall space of 2,400 feet has been devoted exclusively to this work. During the fair educational hall is headquarters for teachers and for all interested in education. A committee of teachers and the commissioner are constantly upon duty explaining the work so far as possible to the hundreds of visitors. Believing the ideal exhibit to be an exhibit of the work of the entire school and not that of the work of a few pupils, Class I of the Washington county premium list consists of premiums offered for exhibits by graded schools, for exhibits by district schools and for exhibits of kindergarten work. During the first two years that I have been interested in this work, high schools were permitted to enter their work as a part of a graded school exhibit, but, as the high schools differ materially as to numbers and facilities for work, they were finally barred out, and the exhibits by graded schools confined to grade work only.

Classes II, III, IV, V consist of premiums offered for exhibits in drawing, original, freehand, mechanical, etc., relief maps, general work in physiology, physics, zoology, business forms, arithmetical figures, plain writing according to age, etc. These premiums are offered for work wherein the pupils of the union school and the pupil of the district school stand upon nearly the same footing and they are open for competition by pupils of all grades.

Classes VI, VII, consisting entirely of map drawing premiums, are divided into two divisions, premiums offered for exhibits from pupils of union schools, and premiums offered for exhibits from pupils from district schools. These are subdivided again according to age of pupils.

This gives you a rapid survey of the work as outlined by our premium list. Several changes will be effected in the list the coming year. A State congressional map and a geological relief map of Washington county are to be added. The construction of the latter will be of special interest and benefit to the children, as Washington county is one of the most interesting counties of the State, geologically, lying, mainly, in a trough which intervenes between the primitive formation of northern New York and that of New England. The principal benefit to be derived from an exhibit of school work at the county fair arises from the fact that this work of the school is there brought to the notice of hundreds of people who, otherwise, would have no knowledge of it.

The future of the exhibit we can not foretell. I desire to see as one of its coming provisions a department devoted exclusively to

school furnishings, globes, maps, desks, charts. Whatever equipments are necessary for the proper furnishing of a school let them be brought to the attention of the people, especially to the attention of the mothers, and better equipped schools will follow, for we have been taught that "The hand that rocks the cradle is the hand that rocks the world."

Superintendent Kneil.—I had the pleasure of attending the Washington county fair, the day after the horse trot. The exhibit of the schools of Washington county of Miss Ingalsbe's district was certainly an exceptionally fine one. I was much impressed with the line of the work they are doing in this district. The part of Miss Ingalsbe's remarks that impressed me the strongest is the fact that through these exhibits we are getting hold of the parents of the children. A great many people come in contact with school work during the days of the fair who never have enough interest to bring them down to the schoolroom. I wish especially to speak of the work that is done in the district schools. I was greatly impressed with that. It certainly ranked with the work done by the graded schools, and, in one or two instances, was far ahead of the work done in the graded schools in that district. The interest in the education exhibit was really phenomenal. I wandered all over the fair grounds and came back to the building time and again expressly for this purpose, to see how much interest the people of Washington county took in the educational exhibit and there was not a thing on the fair ground that attracted the attention of the people as did the educational exhibit of the schools in this commissioner district. It was a first-class display from beginning to end, and it does seem to me that if we could carry more of it into the county fairs of the State, it might do a great deal toward bringing the common schools into sympathy with the work that is done in the most advanced schools of New York.

Commissioner Jones, Oswego county.—We have the exhibit, and we have seen it carried out in some States more than we have here, and I realize that it is a great educational force, and not only the parents of children who are not interested particularly in school work, but teachers get helpful ideas from seeing the work which other teachers are doing.

Commissioner Rice.—We had an educational exhibit at the fair on Education Day, and all the pupils were requested by the teachers of our district schools to send the productions of the boys and girls there, and the secretary named one day or afternoon in the week on which they would give exhibitions. They were liberal in their prizes, and I found that the rural schools took back half of the prizes.

APPOINTMENT OF COMMITTEES

President Elwood appointed the following committees:

Time and place of next meeting.—Commissioners Baldwin, Tuttle and Presley.

Resolutions.—Commissioners Miller and Holcomb, and Superintendent Kneil.

Auditing.—Commissioners Barden, Strivings and Scott.

QUALIFICATIONS FOR RURAL SCHOOL TEACHING

MYRON T. SCUDDER, INSPECTOR OF REGENTS' SCHOOLS

Rural school teaching presents marked contrasts to other teaching. It is done under conditions of peculiar advantage, such as freedom from the machinery of graded systems, unrivaled opportunities for individual work with children, exceptional advantages for nature study, possibility even greater than that of the minister to uplift a community, to broaden its intellectual and moral horizon. It also has its peculiar disadvantages, such as the inadequate, unadorned, desolate building, with its inferior equipment and appliances, the great number of recitations, the narrow range of studies, the isolation. Done under such conditions, rural teaching calls for peculiar qualifications, the existence of which perhaps ought to be ascertained before teachers are permitted to begin work in the schools. At present, however, all candidates for teaching, whether they are to teach in city, village or country, are subjected to approximately the same tests. It is not necessary in this presence to rehearse or to discuss these requirements. They are well known, they are rigid and effective, and never so much so as under the present administration. It is nowhere held, however, that they are ideal, nor is it presumable that they are fixed for all time. They will be changed, and the changes will come as rapidly as public opinion and the advancement of educational theory will permit. But theories, whether of the public at large or of educational thinkers, depend largely on the ideals formed of the kind of schooling necessary to secure greater contentment and happiness under the conditions of twentieth century civilization. What are these conditions and what are the indications as to the kind of education needed? Such questions as these land us in the domain of sociology, and we shall find our way to a very fruitful consideration of our subject if we seek some of the social factors bearing on it, limiting our observations, as is proper, to rural conditions.

What, then, do the social conditions of the rural districts require in the way of educational facilities, and what qualifications would these necessitate on the part of the teacher? The term "rural" should be defined before we proceed. The United States census employs it to designate all portions of the country outside cities of 8,000 or more population. In common use, however, it has a somewhat narrower sense, while for discussions of an educational nature, such as we are at present undertaking, it is generally applied to those communities and scattered populations that are immediately concerned in farming. Even then it is a broad term, for it has to do with vast areas and great populations. In this State alone, for instance, we have 226,000 farms, covering 34,000 square miles, and bearing a population of at least 1,200,000 souls.

In this day of rapidly growing cities and great manufacturing enterprises, absorbing as they do the interest and attention of the large majority of the people (in New York more than 4,000,000), the large population out on the farms, with its peculiar needs and peculiar difficulties, has been somewhat pushed into the background. The great cry has been, and justly enough, too, what can we do for the city? But it is equally urgent to ask, what can we do for the country? For it is true now as ever that a vigorous and reasonably contented rural population, as well as city population, is essential to the welfare of a nation. For bear in mind, first, that it is a most important source of a nation's manhood and character. Our rural districts, our farms, have given to the country many of the most noted and most useful men and women. Thus far nearly all our presidents, statesmen, great business men, noted clergymen, and practically all our great teachers were born and bred in the farming districts of this country. Not only is this so of the past, it is so even now. Splendid humanity is still one of the staple products of our farms. My colleague, Mr. Wheelock, read in your presence last year, statements from many of our principals and superintendents to the effect that the non-resident students in their schools, the rural students, are among the best, and often lead the others. State Superintendent Pendergast, of Minnesota, says that the best scholars in the high and normal schools of his State, are those who come from the rural districts, and that "the principals and superintendents of the best graded schools think it of the greatest advantage to have these boys and girls for examples of studiousness and good scholarship."

Surely it is essential to the welfare of a nation to preserve in a condition as vigorous and as contented as possible this rural population, this great source of a nation's strength. Undermine the welfare of our rural districts, allow the conditions of rural life to remain such as to breed discontent and to drive people from the farms, destroy or seriously injure this great

tap-root of manhood, character and patriotism, and you have a social condition far more threatening to our government than would be the arrival of hordes of anarchists.

Yet we are compelled to admit that the condition of our rural districts is such as to cause grave apprehension. Much has been said about the decreasing population in the country. Out of 25,746 townships in the United States, 10,063 lost population between 1880 and 1890. Out of New York's 922 townships, 641 lost population, and this loss was accompanied by a falling off of nearly 25,000 in the total number of farms. The results of this movement are unfortunate. For not only is it true that those who have joined in this exodus are among the best of the population, but it is also true that their places have often been taken by foreigners. Tenants of foreign birth are managing an ever increasing number of farms. If these were always of the industrious, intelligent class, there could be no complaint. But unfortunately they are not, so it comes to pass that old and tried families are replaced by a decidedly inferior stock. So much so in some sections of our State, and in many sections of some other States, that a portion of the rural population is degenerating into a rural peasantry, ignoble, unprogressive, base. Other results of this depopulation are the bad roads, which, either deteriorating or failing to improve, increase the isolation of the people, making it difficult to get within the refining influences of churches, schools and social gatherings, and causing a still wider separation from the larger and more progressive communities. As a consequence the churches and schools are less well attended, grow weak and close. Property diminishes in value, and finally agricultural pursuits fall into less repute. Is it a wonder that those who are obliged to remain are discontented?

Of course it is equally true that our entire laboring population is discontented, but we are concerned just now with the rural situation. Never have complaints been more bitter and better founded; for not only has the competition decimated the profits of labor, competition such as the world never knew before the steamboat and railway brought the products of five continents into one market, but the agriculturist is too often at the mercy of a crowd of commercial harpies, who as middlemen, control the sale of produce, and roll up into their own private fortunes the money that should have gone to reward honest labor.

The farmers themselves are very much to blame for their unsatisfactory surroundings. It has often been said that any one could farm. This has been true; it is not true now. Never has there been a time when it required so much brains to conduct a successful farm as now. Professor Roberts, Director of the College of Agriculture at Cornell, says "a man must be able to get

300 bushels of potatoes to an acre or fail." This means that a man must use improved methods and improved machinery. This necessitates increased intelligence. Yet we know that the intelligence and skill of the farming class has by no means kept pace with the invention of machinery and of superior implements, nor with improvements in methods of tilling the soil. Remember, too, that conservatism, ignorance and poverty operate to prevent progress, and where in the world do you find these characteristics in such aggravated forms as in some rural communities? As a result we have a great deal of wasteful, unintelligent farming, in some places a degenerating class of farmers, and generally speaking a population, to sum it up in one of Professor Roberts' epigrams, "of too many plowboys and too little brains."

The hardships of the country repel. The present condition of country life on many farms is simply unbearable. The "perpetual toil in good weather all through the busy season, and the perpetual loneliness in bad weather and through most of the winter season," taken in connection with the too often unattractive, comfortless surroundings, and the lack of advantages for social and intellectual improvement, are enough to cause a heavy emigration. On the other hand the city and village grow more attractive. Clustered houses, pleasant companionship, improved schools, active churches, showy streets, business opportunity, bustle, movement, draw people powerfully. The contrast between city and country is keenly felt. Older people move to town to pass the last years of their lives and to educate their children. The younger people forsake their homes and seek elsewhere that which the rural environment does not furnish.

Miss Scammell, one of New England's most successful rural teachers, puts it well when she says, "Taxes delinquent, crops uncertain, comforts bought with sacrifice, luxury above price, these and more wean the sons and daughters from the farms at the time when home attachments should be strongest. They look off beyond the hills and hear a freer life calling them." Is it a wonder that the more ambitious amongst them exclaim, "Anything but this! Anything but this!" and leave?

Now, it is nowhere contended that all who are born in the country should remain in the country. On the contrary it is important that a steady stream of manhood should go from the country to the city. Emerson says, "The city is recruited from the country. The city would have died out, rotted and exploded long ago, but that it was reinforced from the fields." President Hyde, of Bowdoin, says in the Forum for June, 1892, "Sociologists tell us that 'only the agricultural class possess permanent vitality; from its overflow the city population is formed, displaced, renewed.'

Any city population if left to itself would die out in four generations.' " *

So by all means let there be some migration, nay let there be a generous movement from the country to the city, for it indicates a healthy social condition. But it is not a healthy social condition when that movement swells to an exodus. A migration that causes an actual decrease in population is menacing, and such a decrease is now taking place. As a consequence "we must expect," says Dr. Josiah Strong, "the steady deterioration of our rural population unless effective, preventive measures are devised. And if no new preventive measures are devised," he continues, "I see no reason why isolation, irreligion, ignorance, vice and degredation should not increase in the country till we have a rural American peasantry, illiterate and immoral, possessing the rights of citizenship, but utterly incapable of performing or comprehending its duties." †

We may properly assume at this point that among the preventive measures public education must be reckoned. If our rural population is to be reasonably contented and happy, the abandoning of farms should be checked, and the conditions of rural life must be so improved as at least to become bearable. Here is the rural school's great mission. Yet as at present constituted it is not equal to the emergency. Of course there are many individual schools where most excellent work is being done. But we think it is safe to say that, as a rule, the country district school, whatever it may have been in the past, is not now adapted to the needs of the rural districts. It does not establish favorable conditions for furnishing useful information, for disciplining the intellect or for cultivating the literary tastes. It does not satisfy the needs of families who prize school advantages. It has no direct bearing on the industrial pursuits of its neighborhood, and generally speaking, it is most hopelessly unprogressive.

How may the situation be improved?

In order to get at this problem somewhat objectively, I will call your attention to a significant movement of population, the importance of which does not seem to be generally appreciated. We have spoken of the movement from the country to the city, but in some sections, notably those near large cities there is a very marked movement from the city to the country. Rapid transit has made it possible for business men to establish homes in the country where their families may live during the greater part of the year while they themselves commute. Many suburban cities and villages have grown out of this movement, but its chief significance lies in the fact that a very considerable number of these families have actually settled down to a rural life, in many instances on farms more or

*See The New Era, Strong, page 177.

†The New Era, pages 174 and 177.

less remote from the city in which the head of the family continues to do business. A large number of farms thus occupied by quondam city people may be found on Long Island, in Northern New Jersey, on the Hudson river, and indeed near any great city; and where these people have gone you may generally find beautiful homes, beautifully cultivated fields and magnificent roads. Indeed so attractive have they made their surroundings that in the sections mentioned, and I dare say it is true elsewhere, you may travel for miles amidst veritable gardens of Eden. It is interesting to notice, too, that in these neighborhood there has been an all round improvement, for old resident farmers have beautified their places, and have done better farming, and schools, as a rule, have improved. Long Island in particular has shown marked improvements in this respect, for during the past ten years there has been built along the south shore what is probably the finest one hundred mile row of school buildings to be found anywhere in the world, built largely because of the advent of these agrarian New Yorkers.

Now this movement is solving anew for us under the supposedly adverse conditions of the day some phases of the rural problem. These people live on their farms and estates the greater part of the year, perhaps the whole year, because they find it pleasanter than city life and vastly better for children. Perhaps it is needless to say that there is no talk among them of abandoning the farms.

But can this ideal condition be realized elsewhere? I frankly say no, for these ideals have been attained by rich people after a great outlay of money. Yet the realized fancies of rich people, expensive and unapproachable as they may be, may nevertheless serve as useful models of what is possible. They have demonstrated that by providing educational advantages, social advantages, attractive homes and well-conducted farms, rural life is not only made bearable, but fascinating, and they have given models which others may try to approximate. But while it can not be expected that the favored few will establish model farms and introduce ideal rural customs in every community, it is reasonable to expect that our schools can place such ideals before the children and thus make the realization of them possible. The considerations we have advanced so far in this paper show how essential to the welfare of the country it is that this work should be begun.

But before much can be accomplished the rural school must be in a measure re-organized. The situation would be hopeless if we were always to be limited to the present unit of organization, the school district. So much has been said on this point that a repetition of the facts as to the inadequacy of the school district is unnecessary here. Fortunately there is a high probability that our schools will some day be organized under the township system. But even if they were not, the present law permitting transportation of pupils makes

larger school units possible and paves the way for merging two or more schools into one, a most important measure. It is equally important that each school thus formed should have at least two teachers, for otherwise where programs show anywhere from 22 to 45 and even 50 recitations per day, any measure looking to increased educational facilities would be largely ineffectual.

School organization once assured, the next step would be to equip for work in advance of the elementary branches. The necessity of instructing pupils in higher branches is being more and more felt; not to fit for law, medicine or college, but for life. We seem to have come to the full realization that the elementary branches can not accomplish this. It is a pleasure to observe that many rural schools are already giving instruction, in a small way to be sure, in history and algebra. But it should be possible for them to go further than this.

The 100,000 rural pupils of this State and the millions of rural pupils in the United States, just as much as pupils of larger communities, need higher subjects to stock and discipline their minds, enrich their taste and make them companionable to themselves in the many hours they are obliged to spend alone. Many of them realize this and leave their homes to seek elsewhere an adequate education.

The higher branches are needed also for their influence on the lower grades. They have a drawing power which furnishes an objective point for children and tends to hold them longer under the influence of the school. "Elementary education flourishes best where most ample provision is made for higher education."

Perhaps it would not be possible to give a full high school course in these rural union schools and the more ambitious students might be obliged to seek better school facilities elsewhere. But certainly a course which, besides the elementary curriculum, would include algebra and geometry, bookkeeping and methods of keeping statistical records, the history of at least two foreign countries, a generous course of literature, such sciences as would train the powers of observation and make pupils more intelligent about their surroundings, namely, physics, chemistry, botany and zoology, a course, I say, of this sort ought to be possible, indeed would be possible under proper organization and would promote the welfare of the rural districts.

But a curriculum enriched with academic subjects alone would still be inadequate. Still more pressing is the importance of making the work of the school bear on the industrial pursuits of its neighborhood. Our state superintendent emphasized this in his last annual report. Our president, Mr. Elwood, has always maintained that industrial work would follow where proper provision was made for the education of children in our rural schools. General Francis A. Walker in a recent address at Potsdam said, "Civili-

zation can only advance with the advancement of the useful arts." And lastly I will quote Miss Conro, Director of Home Science in Pratt institute, who says:

"It is a matter of common observation that a purely intellectual culture has failed to accomplish the needful preparation for the many sides and serious demands of daily life. No one believes that the culture is at fault, or that it is superfluous; it is felt rather that something more is necessary. If, then, to a broad culture we add special instruction bearing directly on the health and living, the desired end is, perhaps, attainable."

The opposition which for many years greeted attempts to introduce industrial work into our schools has gradually given way to convictions that strongly favor it, and we now find ourselves concerned chiefly with ways and means instead of arguments pro and con. Two broad principles govern the introduction of industrial work into a school:

1. It must be of a kind naturally suggested by the environment.
2. It should be for purposes of culture rather than of utility.

Before taking up the first point I wish to lay special stress on the second. There is a loud call in educational papers, before educational gatherings and by the public, for "bread and butter education," for a practical education, and this idea has actuated many who have advocated the introduction of manual training into our schools. But, contrary to this idea, is the growing conviction that the practical value of a thing lies not in what you do with it, but in what it does to you.

Manual training has a great function to perform in our educational system, but surely that function is not to teach trades. If industrial work develops the powers of observation and attention, if it trains the eye, ear and hand to precision, if it produces order, neatness, accuracy, if it inculcates habits of industry and thrift, then has it given a boy more than a trade; it has given him power to succeed at any trade or in any walk of life. But further than this, it leads him into a wider, deeper sympathy with all manual laborers. For, if a man's muscles and mind have by practice been adjusted to the nicety requisite to produce a finished piece of work, then will he appreciate a well-constructed article wherever he sees it and enter at once into sympathy with its maker. Thus manual labor, dignified by intelligence and by high ideals, not only aids in life's struggle, but tends to obliterate class distinctions and to promote general contentment. Such, then, are some of the sanctions for admitting hand-craft into our schools.

Now, we have said that the industrial work done in a school should be of a kind suggested by the environment. The environment of the rural school is, generally speaking, agricultural, hence

the curriculum of the rural school should be enriched with provisions bearing directly on the prevailing industry. This is no new thought. It appears among Superintendent Skinner's recommendations.

He says at page 38 in his report of 1896: "Why can there not be incorporated in our courses of study provisions for teaching something of the principles and philosophy of agriculture? There are many interesting topics which could be studied with profit, notably the composition of the soil, the nature and use of fertilizers, the rotation of crops, the care and disposition of animals, the destructive insects, the service rendered by our birds as the friend of farmers and kindred subjects, which, if intelligently taught and faithfully studied, will enable our boys to see the bright side of farming and make them more contented and happy in this work.

* * * While I would not make the study compulsory, I believe it would be wise if the local school authorities in many of our country schools could be induced to provide for the study of the principles of agriculture."

Dr. Harris, in addressing the Association of American Agricultural Colleges and Experiment Stations in 1894, spoke of the importance of reducing agriculture and kindred branches of industry to pedagogical form, and said further that he was confident that when this was done, instruction in agriculture would find its way into the elementary schools of the farming districts. European nations have already done something in this direction. In Russia, for instance, the commissioner of education reports, "Instruction in both horticulture and agriculture has been officially introduced into the primary schools, private individuals and the provincial authorities freely giving ground or lands to schools and to teachers' seminaries for fields and orchards. Many schools have fields of arable lands and gardens cared for by the pupils, which schools become the centers of education in these branches."

From another source we quote the following:

"In Russia one observes a rapid development of practical instruction in agriculture in connection with the village schools. In one of the provinces, for instance, nearly one-half of the schools in the province (227 out of 504) are already in possession of small model kitchen-gardens, orchards, tree plantations, or farms, at which gardening, silviculture and sericulture are regularly taught. These farms and gardens have an area of 283 acres, and contained last year 111,000 fruit trees and 238,300 planted forest trees, the province being mostly treeless. There are also a thousand beehives, kept partly by the teachers and partly by the children. In central Russia the culture of cereals principally is taught, while in Caucasasia especial attention is given to instruction in the culture of the silkworm and the vine."

In Finland an impetus has been given to agricultural pursuits by the foundation of schools of higher and lower grade for the study of agriculture, dairying and forestry. France, however, seems to have led off in this movement. As early as 1851 instruction in agriculture was introduced into schools for training teachers. In the report of the Commissioner of Education for 1889-90 we read:

“In 1860 the majority of 6,000 teachers, to whom the French minister of public instruction had applied for suggestions as to the ameliorations to be made in elementary instruction, responded that agriculture should be added to the course of the public schools. Shortly afterwards the symptoms of an agricultural crisis began to appear, and an investigation was made into the matter for the purpose of remedying the evil. The commission was unanimous in calling attention to the powerful influence that elementary instruction would exert in favor of agriculture, the greatest national industry of France, if introduced as a subject of study in the public schools. At the close of 1888 instruction in agriculture was completely organized in almost all the schools for training elementary school teachers.”

But I will not keep from you the fact that this report also states that in the lower elementary schools instruction in agriculture has been unsatisfactory. It is implied, however, that this was because agriculture was studied from books, and the use of books at this stage of the work, although indispensable to the teacher, is more hurtful than helpful to the child. And as France still continues this work, we may reasonably infer that instruction in the elements of agriculture has not been wholly without results even in the elementary schools.

But some would say it is entirely unnecessary to give instruction in agriculture in the rural schools, as the pupils get enough of agriculture at home. Yet, it must be remembered that a large part of this home instruction is given by men, themselves failures in farming, who are often ignorant of improved methods and are hopelessly berutted. Their pupils would naturally follow in their steps, unless lifted to a higher plane than home instruction could make possible.

To get the ideas of our own rural teachers on this subject, I have frequently asked, Ought agriculture to be taught in the rural schools? Most of them have never heard such a thing proposed and were unprepared to answer. Those who do reply generally say “Yes.” Miss Scammell, who has given much thought to rural school problems, says, “Yes, when the fullness of time shall come, but that time is far ahead, we fear. When that time comes, capable women will be found willing and eager to do the work necessitated by the introduction of agricultural study.”

Cornell University, however, thinks that the time has already come, and, indeed, under the direction of Prof. Bailey, Mr. Spencer, of Westfield, Mrs. Comstock, of Ithaca, and others, some elementary work has been attempted in the rural schools, and the college of agriculture supports the movement with unbounded enthusiasm. Bulletins and leaflets have been printed, schools have been visited, class exercises held, and the sympathy of many teachers enlisted. President Schurman in his last report speaks strongly, as follows, of the necessity of giving instruction in agriculture:

“It is surely the hope of all teachers that the State will not lay itself open to the charge which the London Times recently brought against the policy of Great Britain. ‘Our agricultural distress,’ said that journal of November 29, ‘might be alleviated were the State not far above the education of the populace in the minor agricultural arts and the organization of agricultural industries after the manner in vogue on the continent.’”

But granting that manual training and the minor agricultural arts should be taught in rural schools, can we prescribe a definite course? Here lies a great difficulty. Dr. Harris says agriculture has not been reduced to pedagogic form, while from the statement already made touching the French lower elementary schools, it would seem that instruction in agriculture has not been wholly satisfactory there. Still, would we be worse off in respect to agriculture than we seem to be with existing subjects of the elementary curriculum, every one of which is constantly criticized for failing to give satisfactory results?

It is by no means impossible to formulate a tentative course in agricultural or rural industry for our schools which is both simple and practical. Indeed some features of such a course are already in usable form. Let us observe the situation and see what may be done.

A farmer's work is by no means confined to digging, harrowing and planting. He needs to be handy at many kinds of manual labor, such as carpentry, iron working and repairing. This suggests the wisdom of introducing slöyd or handcraft into the curriculum of the rural schools, and satisfactory courses in this are immediately available.

Again it is apparent to anyone who travels through country districts that aesthetic ideals are low. There are many notable exceptions, but ornamentation of grounds and houses, when attempted at all, is frequently crude both in design and execution. Rural homesteads are often inexcusably plain and unpardonably dirty, with not a vestige of attractiveness. Then note the average rural school, which, with its grounds, should be a perfect bower of beauty; yet how could it be more cheerless and repulsive with its naked unadornment and forsaken desolateness? These conditions

suggest that instruction in elementary horticulture, with its tree planting and landscape gardening, should be given in the schools, bearing in a practical way on the adornment of grounds, roadsides and buildings. Here, again, programs of work are ready and easily secured, notably from Cornell University.

But often the homes themselves are not as attractive as they should be. Within, as well as without, they may be beautified and made more comfortable. Better wages and means of living, the introduction of inexpensive conveniences, the presence of books, music, flowers, and games, these and many other touches of refinement are sadly needed in many places. People need to be taught how to make home life attractive. This suggests instruction in home or domestic science and here, too, well thought-out syllabuses of study are ready and in use in some of the more progressive city schools.

For courses in the art of agriculture we are by no means without resource. Nature study is an important part of an agricultural curriculum, and we can make an excellent beginning in the minor agricultural arts by following such a course as Professor Scott has mapped out with such painstaking care in the manual recently published by the Oswego normal school.

But when we come to the more technical parts of agriculture, the difficulties of forming a reasonable scheme of study are great, though not necessarily insuperable.

We cannot do more here than merely to indicate possibilities and to show the reasonableness of the stand taken by the distinguished men whom I have quoted in this paper. It is important to remember that in the courses in handcraft, elements of horticulture and nature study that have been mentioned, much of the ground has already been covered. What remains should be of a simple, practical character, the object being "Not to teach the trade of agriculture, but to study the phenomena of the life of cultivated plants and domestic animals, and to give information that will aid in their development and multiplication"* Such work would concern chiefly the older pupils, and probably not more than twenty minutes per day during school hours could be given to it.

It would naturally fall into two divisions—indoor work and outdoor work. A syllabus on indoor work might well call for talks by the teacher on such subjects as, dignity of agricultural pursuits; means of stopping the depopulation of rural districts; value to farmers of good newspapers and of professional reading; how to make rural life attractive; influence of good food and of poor food on plants, animals and man; value of beautiful surroundings; importance of good roads; methods of irrigating, etc.

*From the French syllabus on agriculture.

Other subdivisions of the syllabus might include, rural economy; farm accounts; methods of keeping records and statistics, and of taking inventory; care of poultry and of cattle; dairying interests; study of seeds, soils and fertilizers; methods of clipping, grafting and transplanting; means of guarding against injurious insects, etc.

The outdoor work would be concerned with kitchen gardening and market gardening; with beautifying grounds; with tree planting and fruit and flower culture; with simple experiments as to the growth of vegetables, showing, for instance, as has recently been done at Cornell, the effect on the yield of potato crops of cultivating once, twice, three times, and so on to perhaps ten or twelve times. It is important to say here that the course in elementary agriculture should not concern itself with the actual making of butter and cheese, or with the raising of poultry or of farm animals, nor could the school be expected to maintain barns and chicken-houses or to equip itself with the outfit of a farm.

But what ought such a school to have in the way of an equipment? What would such an enriched curriculum as has been proposed involve?

We need merely mention the library, which, though not necessarily expensive, should be well selected and would be as essential to teachers as to pupils. But there would also be needed more land and enlarged buildings; more land to afford opportunities for instruction in horticulture and gardening, and enlarged buildings to accommodate the industrial work and nature study. But how much more land and how much more in the way of buildings? We recently spent two days at Ithaca, to confer with Professor Roberts and others in regard to these questions. The conclusions arrived at were that an acre of land would be a minimum requirement and that for the average size rural school a green-house (I give Professor Roberts' figures) 12 feet x 16 feet, and a tool-room and work-shop 16 feet x 32 feet would provide very satisfactory accommodations for the industrial features of the work.

The cost of such additions, estimated at about \$800, would certainly not be prohibitory where two or more districts had united to support a school. This \$800 would cover the expense of the two proposed additions, and also of a good heating plant that would keep all parts of the school comfortably warm.

It may be objected that the running expenses of such a school would be too great. We do not think, however, that as a rule it would cost the taxpayer more than the present arrangement, and it might be even less. Examine, for instance, the figures given in the accompanying tables, taken from the 1895 report of Commissioner Case, of Ontario county. Each table represents a group of schools that could conveniently be merged into one union school,

providing a few of the children were carried back and forth from their homes.

(1)

DISTRICT	TOWN	Teachers	ATTENDANCE		Cost
			Total	Average	
No. 2.....	Richmond	2	61	39	\$725
No. 5.....	"	1	10	4	230
No. 6.....	"	1	15	5	240
No. 8.....	Bristol.....	1	13	8	230
	Totals.....	5	99	56	\$1,415

(2)

No. 6.....	West Bloomfield	3	97	69	\$1,134
No. 2.....	"	1	18	14	305
No. 8.....	"	1	39	20	357
	Totals.....	5	154	103	\$1,796

If the four schools in table 1 were combined, three teachers could easily do the work including the elementary, higher and industrial branches; if these three teachers were paid say \$400 each, as indeed they ought to be, there would still be \$215 left for heating, repairs and transportation, and yet the combined school would cost no more than the five individual schools. Time is lacking for further comment on these tables, if indeed further comment were necessary.

I am aware that such changes and improvements in our rural schools as have been suggested in this paper could be brought about only with extreme difficulty. Not only would teachers oppose them, but they would most certainly be met by intense local opposition. Then too, a vast amount of inertia must always be overcome before preliminary steps in any new measure can be taken. Yet if these questions are of such supreme and pressing importance, if the welfare of our rural districts, nay of our country, demands such innovations then will the State be justified in favoring their adoption even to the extreme limits of reasonable coercion, and, if necessary, should subsidize liberally those communities that will undertake this great educational movement.

But, suppose after all, that schools were not combined into larger units, or that if they were so combined, they were still taught by one teacher, could the rural school curriculum be improved? Could more and better reading be done? Would there be room for nature study and industrial work? I unhesitatingly answer yes, my confidence being based on an outline course of study which is herewith submitted, and which is accompanied by a program for each day of the week.

Yet courses of study, skillfully prepared programs, buildings and appliances are of value only as they are animated by qualified teachers. The number of qualified teachers in the country schools is small, but whose fault is it? When people really want good teachers they will be able to get them. The standard of qualification indicated in this paper is by no means beyond reach. Some of our professional training schools are annually graduating teachers who are well able to undertake the work here blocked out. But it is also possible for teachers not so trained to become acquainted with the enriching elements of this course. How? Through books, bulletins, and agricultural extension courses, and through the farmers institutes which rural teachers should by all means attend. Excellent text-books on agriculture are even now available. Bulletins of great value are sent free by the United States Department of Agriculture and by our own Cornell University. Many valuable books and publications pertaining to rural interests have been issued, and traveling libraries containing the best of these are sent anywhere in this State from the State library.

Thus are the facilities for training our teachers and for improving our rural schools at hand. The momentous question is how to turn them to such account that their combined influences may produce a twentieth century rural school that shall in every way be adapted to twentieth century civilization.

COURSE OF STUDY.

FIRST YEAR	THIRD YEAR	SIXTH YEAR	EIGHTH YEAR
Periods per week	Periods per week	Periods per week	Periods per week
Reading, history and literature..... 10 Number..... 3 Plant and animal study..... 3 Drawing..... 3 Manual training..... 3	Reading, history and lit..... 10 Number..... 3 Plant, etc..... 3 Drawing..... 3 Manual tr..... 3 Miscellaneous..... 3 Physiology..... 3	Reading, hist. and lit..... 8 Number (arith.)..... 4 Plant, etc..... 3 Drawing..... 3 Manual tr..... 3 Miscel..... 3 Physiology..... 3 Composition..... 3 Geography..... 4	Reading, hist. and lit..... 8 Arithmetic..... 4 Plant, etc..... 3 Drawing..... 3 Manual tr..... 3 Miscel..... 3 Physiology..... 3 Composition..... 3 Geography..... 4

Notes.

used at Oswego State Normal School, Cook County Normal School, and elsewhere.
 idy that three (3) periods per week for formal study should be enough.

PROGRAM FOR A SCHOOL HAVING BUT ONE TEACHER	Monday	Tuesday	Wednesday	Thursday	Friday
9.00-9.15..... 9.15-9.35..... 9.35-9.55..... 9.55-10.15..... 10.15-10.30..... 10.30-10.40..... 10.40-10.55..... 10.55-11.10..... 11.10-11.25..... 11.25-11.40..... 11.40-12.00.....	Opening 1st year Arith. 9th year Arith.	exercises with vocal music for all. 1st year Reading. 3d year Reading. 6th year Reading. 8th year Reading. Recess. 1st year Number. 3d year Number. 6th year Number. 1st year Plants, etc. 8th year Arith.	1st year Reading. 3d year Miscel. 6th year Arith. 1st year Plants, etc. 8th year Arith.	1st year Reading. 3d year Reading. 6th year Geog. 8th year Geog. Manual tr. Recess. 3d year Plants, etc. 8th year Miscel. 6th year Plants, etc. 8th year Plants, etc. 8th year Reading.	
1.00-1.05..... 1.05-1.20..... 1.20-1.35..... 1.35-1.50..... 1.50-2.10..... 2.10-2.30..... 2.30-2.40..... 2.40-2.45..... 2.45-3.00..... 3.00-3.15..... 3.15-3.30..... 3.30-3.45..... 3.45-4.00.....	Miscellaneous 1st year Reading. 3d year Reading. 6th year Reading. Physiology { 3d yr. 10 min. Manual training. Recess. 3d year Plants and Animals. Drawing. 6th year Plants and Animals. 8th year Plants and Animals. 8th year Geog.	period. 1st year Reading. 3d year Reading. 6th year Reading. Physiology { 3d yr. 10 min. Manual tr. Recess. period. 3d year Plants, etc. Drawing. 6th year Plants, etc. 8th year Plants, etc. 8th year Geog.	1st year Reading. 3d year Reading. 6th year Geog. 8th year Geog. Manual tr. Recess. 3d year Plants, etc. 8th year Miscel. 6th year Plants, etc. 8th year Plants, etc. 8th year Reading.	1st year Reading. 3d year Reading. 6th year Geog. 8th year Geog. Manual tr. Recess. 3d year Plants, etc. 8th year Miscel. 6th year Plants, etc. 8th year Plants, etc. 8th year Reading.	

Zyoten,

MANUAL TRAINING coming just before noon allows students specially interested to continue 10 min. longer at their work by giving up their recess. Older pupils may assist younger.

PLANTS AND ANIMALS for 8th year pupils may merge into elements of agriculture, in which case it should come at 2.45 P. M.

President Elwood then introduced Mr. F. A. Converse, of Woodville, N. Y., who spoke as follows:

Mr. President, Ladies and Gentlemen.—It would seem almost akin to presumption for me to talk upon a subject which has been so thoroughly discussed in the paper we have just listened to from Mr. Scudder. I can assure you it was not a preconceived plan for us both to discuss the same question. He has stolen my thunder so completely there remains but little for me to say. I will not read the address I had prepared, but simply call your attention to some points he has refrained from submitting. In the first place, I want to say it has been my privilege for the last seven years to be connected with the State Department of Agriculture as institute instructor, and from such an experience I believe I am in a position to judge fairly of the agricultural conditions in this State. My friends, I believe that the perpetuity of our American institutions touching the welfare of all our citizens depends largely upon the condition of our agriculture.

As I go over the State the work brings me in contact with a large number of farmers, and their general condition is one of serious concern. True, very many farmers are men of high intellectual ability, but the great majority are in sad need of better and more advanced ideas of the natural sciences.

The qualifications of a farmer in these days are not simply muscular efforts, but rather a willing hand guided by a skilled brain. I stand here to say that from this time on a farmer, who is successful, must be a man of keen perceptions and educated in the sciences to the full extent of applied agriculture. Agriculture is now a profession of high order and demands the attention of us all, to the end that more and better education touching agricultural interests be given. I assume that the present condition of the individual farmer is largely due to improper educational facilities in his younger days. No man rejoices more than do I at the progress education has made in the past two decades under State aid, particularly in the rural schools. And yet, when I see the courses established in our colleges and universities for the purpose of making architects, engineers, farmers, etc., it seems to me we have started out to accomplish our end a good deal as the Irishman said he'd build his barn: "Begorra," he said, "I'd put the roof on to it first."

Did you ever stop to think that the great reason why most young men and young women enter our agricultural schools is lack of primary training along those lines? We have in this State something like 375,000 farmers, and the great majority of them absolutely ignorant of the principles that underlie plant growth and development, to say nothing of animal economy, commercial fertilizers and scientific methods. All of us recognize the fact that

the farmer is the only producer of wealth, and that all the products of the mines are simply used to distribute his products. I believe if agriculture in this country is to be an index of the social and commercial standing of America, it behooves each and every one of us to use our best influence to bring about a better educational system in the rural districts for the benefit of the young, for I believe from them is to come the greatest good in an agricultural reform. Older men and women are slow to accept new ideas. Their prejudice and ignorance is often too deep for modern accomplishment.

Professor Roberts, of Cornell, was right when he said: The time has come when we must take up these new methods and bring them to the boys and the girls through the medium of the rural schools. Men all over the State are turning their attention in that direction and it seems to me that the time has come when all of us should use our best endeavors to have the natural sciences especially as applied to agriculture, taught in every school in this State.

I was very glad indeed to know that Mr. Scudder, of the University of this State, had given so much careful attention to the subject, especially as to the ways of accomplishing such a course of instruction in our schools. I was glad to know that nearly every educator in the country who had turned his attention to this subject was decidedly in favor of it, and the city superintendents and State Commissioners stand ready to take hold of the matter if a feasible plan of instruction is developed.

I have presented this matter before several audiences of farmers and perhaps I can't do better than to tell you that the rank and file of farmers are deeply interested and ask what can be done to bring the plan into execution. Several trustees have evinced a desire to put the natural sciences in the schools if a way could be suggested that was practical.

Mr. Scudder spoke of the opposition because of the increased taxation to the district. My impression and observation is that the very small expenditure needed to introduce the subject would not make opposition owing to expense. The opposition I have met is not from the fear of expense so much as the lack of proper text-books, want of time and inability of teachers.

There may be some reason for this, and yet I feel that such a book as Voorhees' first principles of agriculture would be satisfactory as a book for beginners from which the teacher could prepare daily lessons for the scholars and give instruction in the form of object lessons, and, by the way, as I look back over my own school life, the things I remember best and the ones that did me most good in my after life came always in the object lessons rather than from the text books. Our early education from text books

failed to make us investigators to the extent desired in after life; as a matter of fact we know the least about the commonest things we see and meet in every day life.

The object of our education should be to make us quick at observing natural objects and correctly recording the facts concerning them. Much of the alertness of a child has come from his play rather than his study. This it seems to me is wrong and could easily be remedied by nature studies.

The other objection that sometimes is urged, that it is absolutely impossible to increase the studies in school, because there are already so many, is not without weight. Children work early and late, often having eight classes a day, and an added study would be more than health and strength would permit. My own opinion in regard to some schools, is that if they had fewer classes and more work studying nature and her methods it would be better for the pupils. Since I have been on a school board my attention has been called to instances of this kind where, perhaps, the scholars were studying geography and committing a whole page, by sheer will power, of the highest mountains, longest rivers, the principal cities, etc., of some foreign country, and that same child could not give an intelligent location of its father's farm or its chief characteristics. Let the child study its own surroundings first and increase its knowledge by faithful investigation.

The greatest objection to the plan seems to be inability of the teachers to present the subject properly. I want to say a word right here in parenthesis in regard to a teacher's qualifications and that is this, that it seems to me any teacher getting her second grade certificate should be licensed only upon the condition of being a good teacher aside from her scholastic requirements. Scholarship does not always signify ability to teach.

We do not appreciate as we should the character of a true teacher. Oftentimes a teacher has more to do with shaping the destiny of young lives than the parent or minister. The child under its teacher obeys no command, hears no sound, cherishes no thought that does not add something to its character and life.

The material to develop into true manhood and womanhood are largely gathered in school from art and philosophy, from nature and science, from earth and heaven. So I say a teacher has important duties beyond their literary and scientific functions.

They should possess the purest motives, the finest culture, the broadest charities. Their judgment is often called into question and if the very grain of their nature be not loyal to the great principles—truth and virtue—the flaw is soon manifested in the life of a child. On the other hand no one can do more to tune life to a sweet and noble harmony, and yet many teachers are simply

using the profession as a makeshift or stepping stone to something else. The teacher and the scholar must constantly work in harmony, and I know of no better field than in the realm of nature where every flower and leaf and tree, speaks of the handiwork of God.

I believe the work of the farmers' institute ought to be brought to the scholars of the school to stimulate them to work in the field of scientific agriculture, and in this every grange in the State would co-operate. I would recommend to this body of commissioners that the farmers' bulletins from the experiment stations at Geneva and Ithaca be secured and placed in every school library for the use of the pupils. Prizes might be offered for the best essays upon subjects treated by the bulletins to stimulate an interest in the work. I believe it is the duty of the hour to place in every school in the State some form of nature studies.

This plan should be inaugurated in our schools for the best interests of all concerned. Where the treasure is there will the heart be also, where the boy's interest is there will the boy be also. Interest him in the open book of nature and you have done more to solve the truancy question than the law can do. Perhaps, at present, we can't attain quite to the perfection of Prof. Roberts and Mr. Scudder. We may begin in a small way and through the normal schools and training classes prepare the teachers to do elementary work and gradually work up to a higher ideal. It seems to me it is the business of this association and everybody interested in this subject to use his or her influence in the accomplishment of the plan. I know my remarks have been somewhat rambling, and I have spoken thus more to emphasize Mr. Scudder's ideas than anything else. His paper outlined the methods and plan of work so completely that no one could bring objection as to the probable execution of the work under the existing conditions in our rural schools. I have not touched the matter as to ways and means so much as to try and impress upon you the need of such work. Such an innovation in our schools would help solve the problem of keeping more people on the farm and make their work and lives more valuable.

The lives of many people can be made better by their contact with the soil and the realization of its possibilities of production. Our citizenship can thus be made more ennobling by adequate instruction along the proposed lines.

I thank you for your attention.

Commissioner Brainard.—I am a farmer. I am a commissioner. I have been a teacher and have always lived in Monroe county, and have nearly always lived on a farm, and I read last week the rural school problem and what was said by the State Superintendent, and I know what the State superintendents of other States have

said, and I am slow to believe that the farmers are so badly off or are so ignorant or have such poor schools. It may be that it is true in some other county besides Monroe county, but I do not believe it is true in Monroe county. I believe the farmers of Monroe county will average up with the city of Rochester, man for man. I may be wrong, but I am going to stand by the farmers and I am going to stand by the small districts.

I was in a school yesterday. The teacher had 55 scholars. I stayed there the whole forenoon. I got a point from Superintendent Skinner a year ago at Oswego and am following it. He said to visit two schools a day. I stayed there the forenoon. I said to this young lady we are not trying to put these children through a mill, and if you will stop and consider and study each one of these children, and then stop and think what each one of these children ought to be to make a good citizen, we will work along that line. I will not stop and ask how many times you have your children read nor how many times you hear them recite in arithmetic or in spelling. I believe in the course of study. So far as our schools are concerned it seems to me that to have a good school we must first have a thoroughly qualified teacher. We must next have good supervision.

I do not agree with Commissioner Royce this morning that he needs a surplus of teachers in order to get good schools. In my commissioner district we have 116 schools and 147 teachers. We have just two schools in our district this year where teachers are hired who do not expect to remain another year. The way to bring agricultural instruction into our schools is to require it of those entering the teaching force, to teach it at institutes and put it in the course of study. It is well to teach children the different effect upon the soil of the growth of timothy and the growth of clover; that the crop of one enriches the soil and the other impoverishes it. No doubt Cornell University will furnish our schools with leaflets that can be used for supplemental reading, and so that we can use them and see what we can do.

Mr. Converse.— That matter has brought to my mind that perhaps it might be a good plan to have the commissioners recommend to the trustees that the bulletins from Cornell and farmers' bulletins and publications that are sent out from experimental stations be placed in school libraries.

Mr. Brainard.— I do not believe it is the business of the teacher to teach children to read all nonsense. I believe it is the duty of the teacher to teach children to love to read, to love to get information, and to know how to do it; but I believe there must be the right kind of reading put in every school especially free reading books, and that the children must be taught and encouraged to read these books.

I believe that one of the greatest difficulties we have to contend with at the present time is the frequent change of teachers.

I believe the township system would remedy that or would increase the length of the term of school in the State of New York, that we would have more schools throughout the State and that we would have 36 weeks of school each year.

Mr. Converse.— If there is any commissioner here that sees any objection to a system of this kind being started in his town I would like to know. They can aid a system of this kind by introducing the changes in the form of object lessons, nature studies, and devoting to these subjects a few minutes in the morning and afternoon in a general way. I would like to know if there is any good reason why this could not be done.

Superintendent Kennedy.— I have noticed Mr. Brainard's remarks. I was thinking while he was speaking whether the commissioners present would believe what he stated. I know that he was speaking the strict truth.

It has been my pleasant privilege to travel over this State somewhat. I have been called officially into every county in the State and have attended teachers' institutes and, among others, in that favorite county of Monroe. I have been in the midst of the richness which he described. He spoke of the intelligence of the farmer and he did not praise it any too high. He modestly refrains from speaking of the average wealth of the farmer. But he described the fences, the buildings, the barns, the implements, the drains, etc., that you would see in that section. I am pleased to see that there are such places in New York State. I am sorry to say there are different places in New York.

The question of limitations in the matter come with the question of ways and means, and it will take some time to solve this. Any reform is a matter of slow progress. I have no doubt that the exodus alluded to in this paper has been going on for years and decades. This trouble depletes the rural schools of their very best people. In some instances it has been simply appalling, this movement of the men to the villages and cities, and always the best of them. The tenant population alluded to, the prosperous peasantry, is not at all disturbed by these conditions. The people who would keep up the fences, orchards, shrubbery and ornamental trees flee from unsatisfactory educational conditions. They take their children out with them and place them where they will have the opportunity that they want them to have, although it involves the sacrifice of the farm. The greatest sacrifice is the taking of their intelligent selves away from the farms.

Commissioner Royce.— I wish to say just a word in regard to this question, and, in part, reply to a question asked by Mr. Converse. First, in regard to the assessed valuation of the districts throughout the State. In my county and district I find we have school

districts with an assessed valuation of about \$8,000, but in these districts we find the schools with 25 or 30 pupils, while in the richer and older towns, where there is a valuation of \$45,000 or \$50,000, we very often have but 4 or 5 pupils. During the past year I have talked with the people in the rural districts. I have talked with members at different granges in regard to introducing this subject, and in every instance it has met with their approval, and I think that the farmers, or the boys and girls of these farmers, are very anxious to take up this subject.

I think this subject can be pursued with much more profit than some of the subjects which are now in the curriculum.

Commissioner Rice.—If these reports from Cornell and other agricultural schools can be had free, why not arrange some practical way in which trustees can receive them and teachers use them?

F. R. Smith, St. Lawrence county.—It seems to me, speaking of these reports and bulletins from experimental stations, that there is need of them being edited or rewritten before they can be read intelligently. It seems to me there is a point to be looked at. It seems to me that you are asking the school to produce a condition that the country does not call for. You want the schools to raise up the class of people who will stay in the country, when you have more people in the country now than the country can support. The commercial conditions must be recognized. More corn, more wheat, more hogs, more hominy are produced than this country can use until the price has gone down so that they can not be produced with profit. What is the sense of filling up the country with farmers? (Applause.)

I want to call your attention to another fact. Forty or fifty years ago, at every little cross-roads, here, there and all over the country could be found the blacksmith, the carpenter, the cooper, all at work, side by side, with his neighbor. He helped pay the taxes for the school, he helped to form society, his wife and children helped make up the happiness, the peace and prosperity of the community. He helped to support the churches. Now, where are they? Where are all these people? They all patronized the farmer and used his farm products. They furnished a market for him. They helped him support the churches; made society. Commercial conditions, navigation, transportation have changed, and the changes have driven every solitary one of these men out of the country. They are not there; they can not stay there. The great factories, the great industrial centers have taken them. Why insist that we must have a school system that will keep the farmer on the farm. Instead of trying to get a school and school system that will work against progress, try to get our schools into line and do the best we can to fill the country with broad, strong.

honest, industrious citizens, wherever their walk of life may be. (Applause.)

Supervisor Downing.— Before this meeting adjourns, I wish to say that I believe it to be absolutely impossible to put this subject into the examinations. You understand the State Department, in preparing examinations for teachers, can not prepare a set of examinations for one class of teachers. Until you can separate the teachers who are going to teach in the rural communities from those who are going to teach in the other schools, it will be an impossibility to insert questions upon special topics for those who are to teach in the rural schools.

It is absolutely impossible to put such questions in with the other examination questions. What does a teacher in the city of Utica or Rochester or Brooklyn know about the science of agriculture? The Department of Public Instruction can not be expected to put into a general examination which pertains simply to scholarship questions along the line of agricultural pursuits. I have met this question in the State Grange, and upon explanation to farmers, have been satisfied that it could not be done.

ROUND TABLE CONFERENCE — COURSE OF STUDY

Mr. Wiswell, speaking at the round table conference, said that the whole matter of graded course of study had been placed under the care of the State Superintendent of Public Instruction. During the past year the course had been revised. A general distribution of it will be made soon.

THE ENFORCEMENT OF THE COMPULSORY LAW IN COMMISSIONER DISTRICTS

Discussion opened by Commissioner Holcomb, of Chautauqua county.

After a few preliminary remarks, he favored carrying out the suggestion of the State Superintendent as to urging town boards to make wise selections in appointing truant officers. It seems to me that there is no officer connected with school work, where good judgment is called for in any degree, more than in the truant officer, and as this is an "experience meeting," I will start with my personal experience.

My first act in the matter was a personal letter to the several town boards, notifying them of their duty in appointing one or more attendance officers for their several towns, and at same time

urged upon them the greatest care and the exercise of all the wisdom they possessed in selecting capable men; men of good judgment. After the truant officers were appointed I found it convenient to see them in person. I took it upon myself to see that, although the Compulsory Education Law was mandatory in every sense of the term, nevertheless discretion and common sense should go along with it.

I have found that the teachers and trustees have exercised due care in this, and I have had a number of cases brought to my personal attention where differences have occurred, and in every instance they have been settled satisfactorily to all concerned and the pupils persuaded to enter the school. With the truant officers this is not always the case. While we urged upon them the exercise of due caution, they have gone out as a roaring lion, with war clubs, and stating, wherever a pupil is failing to attend school, you must send the child to school or be arrested and imprisoned.

I have found, upon careful consideration of this subject, that the parents are not aware of the conditions and provisions of the law. This may seem strange, inasmuch as we have sent out a great deal of literature, and it has been talked up a great deal. We have a good many parents who are entirely ignorant of the law. They know there has been a Compulsory Education Law for a good while, and it has been, in a measure, overlooked in the country districts, and for that reason they have felt that, perhaps, this is the same thing as the other, and to begin the enforcement of it with strictness has caused a good deal of ill-feeling. So we have urged upon the truant officers the exercise of good judgment in the matter.

I do not believe that it is the best way to enlist the support of our patrons in this matter by going before them with the law in hand, but, on the contrary, to go before the parents, when they find the children are out of school, and ask them the reason. They are rather diffident in giving the reasons, and this offers an excellent opportunity for the truant officer to show forth his authority; but upon further investigation we find that some of the children are destitute, and that their parents are unable to secure for them the necessary clothing. In such instances we have asked the aid of the several poormasters of the town to see that the children were supplied with the necessary clothing to enable them to go to school, and this has invariably been done.

I believe that the law is right, and that a judicious enforcement, as suggested by the State Superintendent, will meet with no great difficulty, but I think that we must be, in a measure, lenient. While the law reads rather hard, I have treated it somewhat as I do the law to the effect that the United States flag shall float on every school day. In some of our districts we would need six flags a day, and hence we have used judgment in the

matter, as everybody would do, and put out the flag on a day that was proper.

In those instances, where we found the children out of school, and found reasons which necessitated a few days to prepare them for school, we have allowed them such time.

These are the conditions that we have enforced, and so far as I am able to learn, and I know my district well, our children are attending the school, and we have no serious difficulty; at the same time, we have not complied strictly with the law. In some respects we have been lenient in persuading them and allowing them a little time.

Prof. A. M. Wright, assistant in charge of Compulsory Law.—The enforcement of the Compulsory Education Law, it seems to me, is a very important duty or privilege. The Department of Public Instruction can not enforce it in the various districts throughout the State unless we have some means of communication, some way of receiving information that the law is not complied with. At the same time, the best way for the Department to receive such information is through the commissioners. The commissioner is on the ground, and he ought, in my opinion, to so arrange matters that the teachers, trustees and school authorities of his district will communicate with him whenever the law is not well complied with; and that every time it becomes necessary, the Department shall hear. It seems to me that the commissioners ought to be in close relation with the teachers and the attendance officers of their district.

I regret to say that in the appointment of attendance officers only about 25 of the 114 commissioner districts have yet completed the list of attendance officers, so far as the Department is acquainted. Five or six that we had to go after were in the hands of ex-commissioners, and we actually had to visit the district and hunt up the information ourselves. We want to get this list completed as promptly as possible. We do not wish a town in the State of New York to be permitted to go any longer before performing this mandatory duty. When the necessary action is not taken by the town boards, mandamus proceedings will be commenced against some town boards through the Attorney-General of the State.

We do not expect our attendance officers to keep traveling about through the State to find out what is going on. The penalty for non-compliance with the law falls directly upon the school district.

Whenever it is necessary to commit a wilful truant or an insubordinate pupil to a truant school, the cost of commitment and expense of maintaining that child while at school is a county charge. Prof. Wright, in reply to questions from several commissioners,

explained freely the provisions of the compulsory law and skillfully unraveled the knotty points of law brought to his notice.

Owing to the coldness of the room in which the evening session was held, State Superintendent Skinner's address was omitted, and he made only a short informal talk to the commissioners in its stead. He reminded them of their duties as State officers, and impressed upon them the duties which they had sworn to perform. The meeting adjourned at the close of his address until next morning.

SOME WAYS IN WHICH OUR SCHOOLS MAY BECOME MORE EFFICIENT

E. E. EDGERTON, *School Commissioner, Oneida County.*

Mr. President, Ladies and Gentlemen.— I think it was Lamartine who said that the cross and the press were two of the greatest movements ever made in behalf of human civilization. To these we may add the common school, thereby making a trinity which is destined "to mold a continent and to guide a world to free institutions."

How to increase the efficiency of the latter, has been the theme of scholars for ages. I find in the writings of the old masters, Socrates, Plato and Aristotle, the origin of a science of education based upon psychology, and in the works of Quintilian and Plutarch, the art of teaching, based upon philosophical principles. These illustrious men long since passed away, but they left a rich literature as a legacy to mankind.

The ideas of a science and art of education were of noble origin. They were destined to play an important role among schools and school men for all time. The long and starless night of the Dark Ages retarded, but could not destroy them, and as the age of scholasticism rolled away, they were championed by Bacon, Descartes, Luther, Comenius and Pestalozzi. In Germany they received permanent lodgment.

When Von Humboldt organized the schools of Prussia, he laid down the proposition, "Every teacher must be trained in the art and science of teaching." The calculating Prussian accepted the idea, and before a decade of years had passed away, the Empire of Frederick had a system of schools that made the fatherland famous through out the civilized world. To-day the professional teacher may be found in the remote schoolhouse on the borders of the Black Forests, as well as in the halls of the University of Berlin.

The idea of a science of education made rapid conquests in Europe. John Locke and Herbert Spencer did much to arouse the

Anglo-Saxon mind; consequently the schools of England are second to none, save Germany.

The idea has gained a strong foothold in the United States. The leading minds in educational thought during the past 100 years have recognized its importance. Channing and Horace Mann labored with great zeal to prepare a practical solution of the problem of the science and art of teaching.

The latter was largely instrumental in establishing the first normal school in this country, at Lexington, Mass., in 1839, while to-day there are 150 such schools, scattered over the length and breadth of our land. The trend of public opinion is toward professional training. It is discussed in all educational gatherings, in school board meeting, in the shop and in the home. If the people demand it, it must come sooner or later. The people are sovereign and the teachers are the servants.

Doubtless there are many poor teachers who graduate from our normal schools, but consider for a moment, their poverty of preparation if they had not taken such training as those schools afford. On the other hand, there are many noble teachers who never saw a normal school building, who are a power in the schoolroom; whose lives are an inspiration; whose genius comes into contact with dead schools and causes them at once to spring into life. If that class of teachers had taken a normal training, their teaching power would have been increased many fold. The harvest would have been more fruitful because of a more generous sowing.

Therefore, listening to the echoes of the past and the voices of the present, I can not do otherwise than contend for the professional training of all teachers, in a greater or lesser degree. There are several well-defined roads by which candidates may enter the realm of teaching.

The training schools are the most important. Candidates from those institutions receive the greatest consideration. Next to the training schools, are the teachers' training classes, which have become a necessary corollary of the public school system of the Empire State. Thousands may enter the teaching service by way of those classes fairly well prepared.

It has been said that teaching force comes largely from study and experience. Those teachers have had the experience but have not had the professional study; therefore, I would suggest that a course of reading be arranged for such by competent authority. This course should be thoroughly systematized and scientific. I believe in organization; I do not believe in spasmodic work in education. The healthy development of a school system is by slow and systematical growth, in direct obedience to immutable laws.

As the Department of Public Instruction is the hub of our educational system, let it prepare a course of professional study for candidates for each grade of certificate. If we are watching the signs of the times, we can not fail to notice that higher and broader standards of teaching are demanded than ever before; therefore, I would suggest that a premium be placed upon private study by granting an advanced second grade certificate for three years. The examination for this certificate should require more professional subjects than the ordinary second grade; it should be searching and practical. If the teacher has done good work in the school-room and has shown an aptness for the profession, it should be renewed without further examination, the same as the first grade at the present time. It seems to me a useless waste of energy to re-examine in the common English branches for a second grade. Would it not be wiser and more economic to direct the study of the teacher along the lines of the art of teaching?

In the city of Utica several cash prizes are offered to the teachers for the best sets of examination papers upon professional subjects. Undoubtedly, this will call forth exertion, but the rural teacher should be encouraged in her efforts for improvement by a reward from the State that practically assures to her the permanency of her position in the public service.

Along with professional training, I would suggest the adoption of the township system as a means of improving the efficiency of our common schools. At the time of the formation of the district plan, doubtless it was the best that could have been devised to meet existing conditions. But times have changed. The public to-day demands more of the common schools than ever before; consequently the old district system, hoary with age, is weighed in the balance and found wanting. Many distinguished educators of our country and Europe speak emphatically against the district, and for the township system. In 1839, Horace Mann said: "I consider the law of 1789, authorizing the towns to divide themselves into districts, the most unfortunate law on the subject of common schools ever enacted in the State of Massachusetts."

Hon. Francis Adams, of England, says: "The most formidable difficulty which the American system has encountered has arisen out of this question. This is what is known in the United States as the district system." Another distinguished European educator says: "The district system has been tried; it is not liberty, but chaos. Those who are engaged in elementary instruction with one voice demand its repeal." Nearly one-half of the States of the Union have abolished the district plan, either in whole or in part. I wish to read what a few distinguished men have written me upon this subject.

SUPERINTENDENT OF EDUCATION, STATE OF VERMONT,
MONTPELIER, *December 11, 1896.*

Mr. E. E. EDGERTON, *Clayville, N. Y.:*

My Dear Sir.—In compliance with your request of the 8th inst., I take pleasure in stating that the town system has proved itself an unequivocal success.

1. Better teachers have been employed.
Greater care in their selection.
Located according to adaptability.
2. Better work done.
Better teachers.
Better moral support.
Better supervision.
3. Better supplies and equipments.
Amount of supplies increased 50 per cent.
4. Better school houses.
By construction — increased cost during second year 50 per cent.
By repair — increased cost during second year 110 per cent.
—over last year of district system.
5. Better management.
More businesslike and efficient.
More economic.
6. Results prove the success.
People content.
Pupils have more schooling—increase three weeks over district system.
Better attendance.
Better environment.
Better spirit.

FREE TEXT-BOOKS

1. Perfectly satisfactory.
2. Cheaper. First year cost per pupil, \$2.11; hope to reduce it to \$1 this year. Cheaper by 50 per cent. than individual ownership.
3. All pupils supplied and no time lost.
4. Just. Books are a part of a free education. Children are educated for State and town or State ought to provide all the means necessary for education.

Hoping that this may be satisfactory, I remain,

Sincerely yours,

MASON S. STONE,
Superintendent of Education, Vermont.

DEPARTMENT OF PUBLIC INSTRUCTION,
STATE OF NEW JERSEY,
TRENTON, *December 15, 1896.*

E. E. EDGERTON, Esq., *Clayville, N. Y.:*

Dear Sir.—Your favor of the 14th inst. is received. I send you to-day a copy of a paper prepared by my predecessor on the township school system. Dr. Poland treated the subject so carefully in that paper that I feel that there is nothing to add to what he has said except that the adoption of the township system has been of great advantage to our rural schools. In a large number of the townships supervising principals have been appointed and the schools graded and the course of study extended over a longer period, which was not possible under the old district system.

There was considerable opposition to the law when it was first passed, the claim being made that local interests would suffer, which has not been the case, and the opposition has, to a great extent, died out.

The Free Text-book Law met with considerable opposition on account of the expense involved, but there are very few districts now which would be willing to return to the old system.

Very truly yours,

C. J. BAXTER,
State Superintendent.

NEW YORK, *December 14, 1896.*

Mr. E. E. EDGERTON, *Clayville, N. Y.:*

My Dear Sir.—I am in receipt of yours of November 20. I take a very great interest in the improvement of our public schools, but I do not know that I can suggest any plan by which their efficiency is to be even materially improved, unless it be that the small country school districts should be so consolidated that better schools with thoroughly competent teachers might be employed. The schools in our cities and large villages, so far as I know, are now doing excellent work and producing good results. The country schools are so small and the expense of maintaining them upon a proper basis so great, that I fear we can not expect such improvements except through some form of consolidation. How this is to be done and the children from the remote districts to be brought to the center or consolidated districts I will not undertake to say, but I should think it would be cheaper to carry the children to these schools at public expense than to maintain as is now done so many separate and small schools, which of necessity are very inferior in quality and in the work performed.

If there is anything in the above suggestion which meets with your approval, you are at liberty to make such use of it as you see fit.

Very truly,

WARNER MILLER.

The system may not be a panacea for every ill that afflicts the common school, but it will elevate and strengthen; broaden and refine. I want to see the Empire State come to the fore in everything that elevates and ennobles mankind.

Another means of promoting the welfare of our schools would be the adoption of free and uniform text-books. There are many arguments for and against the plan, but, in my opinion, the preponderance of evidence is in favor of the proposition. Teachers and parents have complained for many years because of the wrongs of the present system. On the one hand the work of the teacher is handicapped by the multiplicity and diversity of books in the school-room, on the other, the burden of expense weighs heavily because of the high price of school-books and the frequent changes. The power of law now compels every child to attend school between certain ages. Some are forced into schools with empty hands—the offspring of destitution—perchance the future man of crime. Would not the spirit of the law be more fully realized if books were placed in his hands and regular attendance demanded as a ward of the State? In order that there may be a healthy development of the State, the very lowest stratum of society must be reached, moulded and refined. Every part must be made invulnerable. The poor lad should be made to know that he is a child of the commonwealth. If the schools are to be free make them so in spirit and in truth. In weighing questions of great public utility justice holds the scales—an enlightened public sentiment will eventually touch the beams of right. I would suggest that the town or district be the purchasing unit; that the trustees furnish all children within its borders the use of school-books free of charge; that book publishers file wholesale prices, with sample copies of books, with the State Superintendent; that he furnish school commissioners with said list, and they in turn to the trustees and board of education; that changes can not be made in five years after legal adoption. In some States, as Ohio, the books are purchased by town at wholesale prices and sold to the children. In other States, as Minnesota, it is optional with the towns whether they furnish them free or not.

With your kind indulgence for a few moments I will read two or three communications touching upon this question, which sums up briefly the points in its favor.

(Dictated.)

STATE OF MINNESOTA,
DEPARTMENT OF PUBLIC INSTRUCTION,
ST. PAUL, MINN., *December 12, 1896.*

MR. E. E. EDGERTON, *Clayville, N. Y.:*

Dear Sir.—Replying to your favor of the 9th inst., I inclose a copy of our free text-book plan. It is in operation in one-half or more of the districts of the State, and wherever it is adopted the people would, under no circumstances, go back to the old system. You will notice that it is optional with a district to operate on this plan. The general feeling among county superintendents is that it should be now made compulsory. You will notice that a district may either “loan to pupils free of charge” or sell the text-books at cost. The former plan has been found most satisfactory. When they are sold at cost some parents refuse to buy them, and many of the disadvantages of the old system follow. This feature of the law should be repealed. One of the most beneficial features of the law is that it has increased the attendance at least 10 per cent. in schools that have adopted it.

Very truly yours,

W. W. PENDERGAST,
Superintendent Public Instruction.

IN THE SERVICE OF THE COMMONWEALTH,
STATE BOARD OF EDUCATION,
STATE HOUSE, BOSTON, *December 1, 1896.*

MR. E. E. EDGERTON, *Clayville, N. Y.:*

My Dear Sir.—In response to your favor of November 30th, I have mailed to your address, under a separate cover, a copy of the public statutes of Massachusetts relating to public instruction, with marked passages relating to the free text-book law. I regret that I have not a copy of the fifty-first report of the State Board of Education to send you. It contains a pamphlet entitled “Free Text-Books,” by Thomas Emerson, and might be of service to you.

The subject has passed, they say, beyond the stage of controversy. People accept free text-books without question.

The local school authorities determine what they shall be. The annual expense per pupil is very slight, it being only \$1.50 for the past year. Some times free text-books are kept in use too long, in order to save money, but an abuse of that kind is exceptional.

Occasionally, too, the question is raised whether disease germs are not extended by them, but the general verdict seems to be that with proper precautions about the books of pupils known to be sick with diphtheria, scarlet fever and the like, there is no serious danger.

If there is such a danger, it belongs to public libraries as well as to the public schools. Our system, as a whole, we regard as eminently successful. Whatever discussions we may have relate almost exclusively to minor abuses, perversions or difficulties incident to any system.

Very truly yours,

FRANK A. HILL,

Secretary.

OFFICE OF SUPERINTENDENT OF PUBLIC SCHOOLS.

FRANKLIN SCHOOL, WASHINGTON D. C., *December 19, 1896.*

Dear Sir.— Your communication of the 9th instant came in due time. Because of pressure of business I have delayed answering until the present moment.

We have furnished books and all supplies to the children below the high schools for a number of years. It is held by those who have been in close contact with the schools for many years that furnishing books and materials free has increased the attendance of the schools considerably. The cost to the community at large is very greatly reduced because, first, the price of books is very much below that paid when they are bought at retail, and, second, because the life of the book when cared for by authority is perhaps double the life when guarded by so many owners.

The great gain, however, is in the facts of promptness in supplying the books and other materials thus saving great waste occasioned by having to wait when the parents furnish the same, and in the absence of complaint because of demands for adequate and uniform supplies. The uniformity of supplies in quality as well as other conditions facilitates the work of the teacher very greatly by reducing annoyance and worry.

I send you, under a separate cover, a report from which you may get some information.

Yours very truly,

W. B. POWELL,

Superintendent.

My observation, Mr. President, during six years as commissioner and ten years of teaching has led me to the conclusion that trained teachers, the township system, and free text-books are three of the great levers by which our common schools may be raised to a degree of efficiency never attained heretofore. Then there should be a unification of study between all the courses from the kindergarten to the college, according to the best psychological thought of the age. Then this system should be supervised by men and women who are humble enough to be great and great enough to be humble. Then

the great multitude of children who come within the environments of this vast system will be made strong for the battle of life; all that they are capable of being will have been attained. The inspiration they receive will reinfiber the intellectual and moral nature and lift them nearer the infinite. As the clock of time is striking the hours of advance may we all be found standing in our places ready and willing to do and to dare for the eternal right.

Miss Van Rensselaer, school commissioner, Cattaraugus county.— I think I am as proud of the system of education of the State of New York as any one. When we have something that is very good it is natural that we should want it improved. We think we can all see wherein our system of education may be improved. It seems to me that our school commissioners should be so proud of our present system as to be anxious to work for and improve what we have to such an extent that we might say that we have the best in the union. We have the best in many respects, in a great many respects; but there are two or three things I am not proud of. So far as the professional training is concerned, I believe most thoroughly in the professional training of teachers and I believe in it for the same reason that I believe in the professional training of the school commissioners. However humble we may be, the fact exists that we are leaders and we can not ask of our teachers very much more than we as commissioners aspire to.

If teaching is worth entering as a profession it is worth qualifying for. I do not know why the children should come under the influence of a person who has merely taken third grade subjects.

As to the township system, I have been for three years teaching in a State where the township system is used. I have been very much in favor of it and am more in favor of it today. I come from a town in Cattaraugus county in which the people believe in the township system and believe that it can be put through. In many cases the people do not understand the objections and intentions of the township system. I should welcome a circular or pamphlet sent out from the Department to every school commissioner telling us what we can do to help the system become a law.

It is not right that commissioners should be called upon to settle petty matters of differences in schools. The office of commissioner was created for supervisory work. It is not our place to spend a whole day in a school district and not be able to pay any attention to the school but instead be obliged to pay attention to the matter of paying taxes.

I do not like to leave the subject of the township system without urging every commissioner to work for it. Urge your members of Assembly, and senators and explain it to them. We can not expect any senator here and there to get the material prepared, to vote intelligently, but we can spend time on that subject.

As to the matter of free text-books, I hope most sincerely that we can have uniform text-books in our schools. In some of our schools we may have from 15 to 60 pupils, we will have 20 classes, and we will have in one class six different text-books, and in a class in geography of perhaps six, there will be three with no text-books at all. As to the spelling books, they are in many cases so old that the words given in them have become obsolete. I believe we should provide some means by which every pupil should come into the schools with a text-book, a good modern text-book, and I do not believe we ought to expect good work until we have that.

Dr. Sanford, Institute Conductor.—The State Superintendent of Ohio is here, and there are many who would like to hear from him.

Hon. O. T. Corson, State Superintendent of Ohio, upon invitation, addressed the Association as follows: I certainly appreciate the kind courtesy you are extending to a stranger in your midst. I came here for experience upon what, perhaps, is the greatest educational problem of the day; that is, the improvement of the rural schools. I suppose that coming from modest Ohio, from a State that is noted for having no educational system, I may explain that we have been so busy creating presidents that we have not had time to look after details.

I do not think there is everything wrong with the rural schools. I attended an educational gathering in one of the Eastern States some time ago, and some of us listened there until we were nearly worn out at the expressions of sympathy for the poor country boy who never had any chance to do anything. We stood that as long as we could, until, finally, the suggestion was offered that, if any sympathy was to be wasted, it ought not to be wasted upon the country boy, for he had been taking everything in sight, and would probably continue in the future to do so. It ought to be wasted on silk-stocking dudes, who had not sense enough to go to school. I am not certain that everything is wrong with the country school.

But, my friends, do not misunderstand me. I believe that the country school to-day is in danger of having saddled upon it that curse of the State schools all over this country, from which they are trying to rid themselves to-day. To my mind, one of the great dangers in the consideration of the betterment of the country schools is, that so many theorists who have never taught it, who were never inside of a country school, are the most ready to tell us how the country school should be made better. I am perfectly willing for any great college president to outline his course of study and tell how he should manage his institution, but I do not want that man to tell me about the country schools, because he does not know what he is talking about. We must start out with the idea that some things have been done well in the past. I

believe we had some as good teaching in the country schools as we could possibly have anywhere else. I think we are inclined in too many of our educational gatherings to set up the dark side of the country school problem, so that the teacher goes home feeling that he is in trouble.

We know another old gospel preached, and that is the gospel of hard work. I believe, my friends, that the school ought to be made a pleasant place. I believe in these hard times our people all over this country need to be preached to constantly that education is a good investment. We do not want to put it on the utilitarian basis. We can not get good schools by lack of system. If we get the people in certain townships to demand good schools, then it is that we will have good schools. We must not forget the very powerful factor in education, the personality of the teacher. It is possible to put into a schoolroom great scholarship and a professional training not coupled with good sense, and have the poorest possible combination. The worst combination to go into a schoolroom is first-class method and tenth-rate teachers. The educational problem is a difficult one chiefly because the Almighty in his wisdom has never created any two boys or girls alike. If the Almighty had been thoughtful and had made all the boys in a certain township equal in mental qualifications, how easy it would be to have a suitable system of schools; but it is not so. The personality of the teacher should go into the schoolroom and study the children, but not by a fixed formula. The teacher who will go into a schoolroom with strong personality and come in direct touch with it personally, is a teacher.

I am especially interested in the township system, because we have been through that difficult subject. We have enacted in the Legislature something that we have been working for 40 years to secure. It is the township system, but not the township system in its purity. The board is composed of one member from each subdistrict, elected by the people of the subdistrict. We have found many difficulties in the working of the law, and it is sure to be repealed at our next Legislature. The teachers object to the law, it having taken effect at the beginning of the hard times, and, consequently, resulting in a decrease of salaries. If there are ten subdistricts in a town, they each pay so much, and the teacher is hired regardless of his qualifications and fitness. There are two objections to the law; the reduction of salaries of teachers and the taking away from the people the power of local control.

We are hoping to have a bill passed at the next Legislature, so that we can elect a board at large for the township, and then when the men come up for re-election for members of the board of education, instead of depending upon his own subdistrict, he will have to look to the people of the whole township.

I was much pleased this morning to hear what was said about the township system and about the professional training of teachers. As to the free text-book question in Ohio, I think we have solved that problem by letting each community look after its own affairs. "If you want free text-books, you can have them; but because you want them and we do not, is no reason that you should compel us to take them when we do not want them."

Another thing that we have to contend with is the low salaries paid to teachers. What is the use of asking a young man to spend six years in getting a college education and then spend two or three years more in getting high professional training, and then hold out to him \$30 or \$40 for teaching school. We must pay the teaching professions as other professions are paid. I am not teaching school purely for fun; but I have not much patience with the man who teaches for his money alone. In some districts the boards of education cut down the salaries of teachers. While I would like a good teacher in every schoolhouse, and to have the schools thoroughly equipped with everything to make school work a success, if I could not have both, I would much rather have a good teacher than a poor teacher with all the equipment that could be put into the schoolroom.

I am opposed to mandatory text-books, because of the fact that there is great desire now to keep the school expenses down, and, as has been done in the past, teachers' salaries will be reduced. I am opposed to reducing the salaries of teachers who are now underpaid.

I thank you for the courtesy you have shown me.

WHAT WE AIM TO DO IN DRAWING AND WHAT IS BEING ACCOMPLISHED.

COMMISSIONER F. W. McELROY, WYOMING COUNTY.

After nine years of experiment and experience with the subject of drawing, in connection with the public schools of this State, it seems almost useless to ask the indulgence of this body of educators, in the consideration of our aims, in relation to the subject.

Judging from the degree of fierceness with which this subject has always been attacked when presented for discussion in these meetings, I conclude that all that is necessary for me to even attempt to do is to profit by a bit of Irish wit embodied in the following salutation: A fine day this. How is your health? Not that I care anything about the weather or your health, but just for the sake of opening the conversation. With this thought in mind my chief aim will be to open a general conversation regarding the subject.

As it is axiomatic that aims must precede, or at least accompany, all activity, it seems but fair to judge of the aims by watching the results. While I would not indulge in the folly of saying that former aims have been inadequate to the demands of the subject, yet I believe that we are all agreed that the desired results have not yet been reached. Plans by which aims are carried into effect are often such as to mislead, and, in general, the idealized results are never reached. Aims may be set so high that to reach the ideal is impossible, or so low that they signify nothing, either educationally or practically. The former may be outlined by one fully equipped and complete master of the situation; the other, formulated in incompetency and dragged along by complaining operatives, to a ridiculous end.

The object sought under past conditions has seemed to be in accordance with the environments which have either impelled or invited to the study of drawing. There is no longer any doubt regarding the utility and consequent advantages to be derived from a careful consideration of the subject. Enough of success has, thus far, crowned our efforts, where they have been honestly put forth, to warrant taking advanced steps, and making a general inflation of our aims.

Dr. John H. French's paper on "Form Study and Drawing," which was read before this association eight years ago this present month, was a very fitting cradle in which to rock our infant ideals, which must necessarily be involved in the practical introduction of drawing into the common-school curriculum. He so carefully generalized both teaching and results that it seems almost impossible for any student to give it thought without becoming interested.

While the utmost care was indispensable in its incorporation into all the school courses of the State, that the great volume of criticism and stubborn prejudice might be averted, and popular sentiment gathered to its support, it seems to me, without even the shadow of a doubt, that this critical period of introduction is fully passed, and we should now listen, with full decision on our part, to heed the command of our most worthy State instructors in drawing, which is so plainly voiced by the Department of Public instruction: Go forward!

Thus far we have been receiving, at the generous hand of the specialist, this educational tonic in small doses, well diluted and well flavored with patience and charity. As the time comes in the physical development of the child that meat takes the place of milk, so I believe the time has come in which the extract of Dr. French's paper fails to supply a proper, growing demand. It is my opinion that were Dr. French permitted to present a paper upon the same subject at the present status of American education it would contain many very different features

from those of his former one. As the man of yesterday can not be the man of to-day, so must the education adapted to the surroundings of the man of yesterday, be properly tempered to meet the needs of the man of to-day.

Henry Ward Beecher once said that "one might as well gather the dust about the catacombs of Egypt, mix it with water, and mold it into the form of a man, as to attempt to make old theories meet present conditions."

You will, therefore, pardon me when I say that in most cases of public school instruction our aims have been too low. With a true sighted fire-arm one will never shoot over the mark, by aiming below, but it is no uncommon occurrence for even a fair marksman with a slight recanting of nerve to fire many a ground shot. High ideals heavily charged with personal energy never fail to electrify scholastic ambitions.

Our aims must be so inflated that they will displace more criticism than the space occupied by the subject, before it can rise to take its place among other educational branches of the public schools.

Have we not yet arrived at a point at which the words "can not" ought to be dropped from the teachers' vocabulary and to be used only as an epitaph over the sluggard's resting place?

An aged artist once called to him, his young pupil to finish a picture which his age obliged him to suspend, "I commission thee, my son to do thy best upon this work. Do thy best."

The youth protested against touching the canvas already consecrated by the master's hand. "Do thy best," was the old man's calm reply, and, to continued reluctance, he only answered, "Do thy best." The young man seized the brush, and kneeling before the easel he prayed, "It is for the sake of my beloved master that I implore skill and power to do this work." He painted and his hand grew steady. The artist soul gleamed from his eye. Fear and self-distrust were gone, and the last stroke was given to his picture in a spirit of humble, yet glad assurance. As his master was borne into the studio to pass judgment upon the work, he burst into tears at this triumph of art, and embracing the student, he exclaimed, "My son, I paint no more!" Thus did the young Leonardo Da Vinci enter upon his artist's career, and in later years he produced his great painting, which annually attracts to its shrine hundreds of the worshippers of art.

We may not all become Da Vincis, but we can at least lend words of encouragement, as some means of inspiration to help on the work. One can scarcely hope to stand before the educational sphinxes of the last part of the nineteenth and the first part of the twentieth centuries and guess all their riddles. One thing, however, is certain, all that is educational and tends toward a sys-

tematic, logical and symmetrical mind development is worthy our thoughtful consideration.

I must confess that the wording of my subject somewhat confounds me as I come to outline our aims. If I am to outline the present and the future from the past I can only say there are too many. They vary in number in proportion to the people having to do with the subject. The State Department of Public Instruction, the State University, city and village superintendents, school commissioners, public school teachers and authors have each been driving away at the subject from his own standpoint. On account of a non-concentration of efforts we have failed to give to the study of drawing its merited place; consequently merited success has not been realized. I note, however, with great pleasure, the fact that the two great educational departments of the State have, of late, struck a line of convergence that will ere long lead to the vertex of the angle with one aim paramount regarding the teaching and that to bring forth its educational values.

Our first aim should be to make the work uniform, based upon a unit of design. It is perfect folly to hope for any great advancement while pupils are taught one thing and examined in another, or while one teacher says that a thing is right and another that it is radically wrong. Such a method of procedure only serves to disgust the more thoughtful pupils.

There is no doubt that much of the slowness with which the study of drawing has advanced is due to the obstacles which school commissioners and superintendents have thrown in its way.

It hardly seems to me fair to call the instructors cranks, and pronounce the whole business a farce, simply because our early education was not adorned with the accomplishments that art can give.

What we need is the gift of continuance. We must leave off the hop-skip-and-jump method and make a long pull, a strong pull, and a pull all together. Our second aim should be to impress its educational values upon the minds of both parents and pupils. To attempt to reach the goal of success over the stern veto of public opinion is an impossibility. The supervision must find a way to the parent's sympathies and through their sympathies awaken favorable sentiments. This can only be done by way of the teacher through the child.

Not long ago, while visiting a two department village school I asked the teachers what they thought of the practical educational values of drawing. They responded in common that they thought it had none. I then began questioning them concerning the different phases of the subject, when one said to the other, "You had better be a little careful how you answer those questions or you will confess to having made a false statement."

These teachers were by no means dull and I find by more thorough investigation that they are not an exception to the general rule.

Under this head I say establish a principle which will in every case substantiate the scientific part of the work. This is unmistakably the chief aim of the department. All instruction given at institutes during the past two years has, presented drawing from purely educational calculations, and I am credibly informed that it is the full aim of those having the matter in charge, to carry on this line of work as begun, but with fewer and less abrupt changes, both in institutes and uniform examinations for 1897.

I can see no reason why the fundamental principles and proofs underlying all work of art should not be taught just as earnestly in connection with drawing as addition, subtraction, multiplication, division and the relative values of figures are taught in connection with all mathematical computations.

Prof. W. N. Hull, of Cedar Falls, Ia., once said in this connection: "Let the teacher be encouraged in the thought that there is no labyrinth of elements, principles or preliminary steps, and let him commence at once picture making." In a later article he says that "Drawing is not one universal science, but at the present time consists of various systems whose authors follow no general plan, but differ both in their conception of the object to be gained by the study and in the methods of attaining it."

A little girl was once told by her teacher that presume was a much better word to use than guess. A few days after the little girl was asked if her mamma had a pattern by which she cut that cloak. "No," replied the girl, "Mamma cut this cloak by presume." We may not have been guessing all these years as we have attempted the teaching of drawing, but our presuming has led us into too much confusion.

When the minds of teacher and pupils can be disabused of such deluding speculations, and can grasp the subject of drawing by a principle and know where to find it, then will the study of drawing cease to be a rocky thoroughfare over which so much of personal sacrifice is drawn, just to receive 50 per cent. in the uniform examination.

It is surprising to know how many people go through life entirely unheeding the things of an educational character, which are incidentally dropped along their pathway wrought by human hands and nature's God. A prominent educator once said: "Man begins his mental growth when he begins to study the world outside of him, people, the earth, things—on these he fastens his eyes—all his senses. He learns three modes of expressing his knowledge, through language, art and numbers. The education that came to us from the past first exalted one of these modes of expression—language, and

made its study cover seven laborious years; numbers were added. In later years the tendency is to go back and begin where the Creator started man and let him study people, the earth, and things. There is a beautiful philosophy underneath all this. Industrial education properly understood is the education."

By a quick, keen perception, imagination is intensified, memory strengthened and reason developed.

Miss Rice has well said in relation to this particular phase of the subject, "Our trend toward the practical side, is in consideration of the 96 per cent. of pupils who are, early in life, required to meet the bread and butter question. For all such we have tried to outline and emphasize a course which shall furnish resources in after years. We look about and realize fully that for almost every object we see which has been constructed, there has been made a drawing which has been the guide in the manufacture of the same, and that of the 96 per cent. who leave the schools the day the law allows the majority must find employment requiring, hand work of some kind. The hand work requires reasoning, judgment and quick preception and the very keenness of eye is the foundation of skilled labor."

A visitor while passing through a manufactory of chinaware in Paris, saw many costly paintings in the rooms, even in the halls, through which the workmen passed, "Why are these here? he asked." "To serve as models and suggestions to the workmen."

Perception may grasp, but art and science alone can modify and reproduce. The reporter may witness an event, crime or accident and know its details full well, but without superior graphic skill his reproduction will never move the world. The phrenologist will stare so scrutinizingly at an individual who has just become the object of his study, that he will fairly put the person in a state of unrest feeling that he will thus soon reveal his soul of thought to the outside world.

A continued cultivation of observation will enable the pupil to acquire exactness, discover quality, compare relative values, and discern the whole, from the indication of its parts. This, drawing aims to do and can accomplish when it has opportunity. If we can come to the point of presenting drawing to the pupils as an educational subject, it will be lost sight of as an educational frill, and will come to be recognized as one of the important factors in man's education.

Our third aim may be a suitable development of aesthetics. Concerning the tastes Ruskin very beautifully says: "On these primary principles of our nature, education and accident operate to an unlimited extent; they may be cultivated or checked, directed or diverted, gifted by right guidance with the most acute and fault-

less sense, or subjected by neglect to every phase of error and disease."

One of New York's prominent educators has wisely said, "Aims to quicken the inherent love of the beautiful, which every child possesses, to control and possibly train to a refinement and cultivation of tastes which the parents have not, can never be lost. If this can be accomplished in early life no after influence can erase it."

This trend of education may seem to many to be destitute of its paying qualities. Aristotle asked of ancient educators a question which conveys a logical suggestion. "Is education to be chiefly directed to things of common and vulgar use, subservient to bodily accommodations and productive of external prosperity, or ought its main business to consist in the sharpening, fortifying and ennobling of the mind?"

This line of study, should, in my opinion, be managed with great care and advanced with ample precaution. It is a well-established fact, that boys and girls of all ages, as well as adults; are quite subservient to their likes and dislikes.

What we admire, becomes to us very companionable. The hours never drag wearily when we pore over a subject agreeable to our educational tastes.

It is one of the God given attributes of humanity, to love the beautiful. Again I quote from Ruskin: "Ideas of beauty are among the noblest which can be presented to the human mind. invariably exalting and purifying it according to their degrees."

If we are not careful, in considering the beautiful, in connection with drawing we shall become confused in the use of the terms art and aesthetic. Art involves skill, in doing which results from continued practice.

Dr. French, speaking of the practical business value of form study and drawing, incidentally remarked, that, "A practical point growing out of this study, indeed forming a part of it, is the subject of industrial decorations," and further added: "I very well know that to claim a practical value for beauty is apt to invite derision, and yet, this is one of the most practical points in the whole question."

While I am well aware that to advocate the general development of artistic skill, would be considered by the conservatives, out of order, and fully realizing, that, no matter how much we might prize the personal accomplishment, which art can give, it is a gift delegated to the few and not the many, yet, I do believe that enough of art can be incorporated into our drawing work, so as to render the lifeless skeletons of the type solids very much more attractive.

By some slight modifications which can be acquired, with but

little practice, a reality will be imparted to the study of drawing, of which it has been largely deprived. As art is the direct product of skill it is equally true that aesthetics is the direct product of an early education. Aesthetics and ethics are not strange companions. Where tastes are highly cultivated, morals and manners are sure to abound. It is indeed, to me a great pleasure, to be safely anchored in the belief, that a careful study of the beautiful, will incline our ambitions to a purer, nobler and divinely ordained life.

I have, thus far, incidentally referred to what has been accomplished but more to what has not. For the purpose of ascertaining, as accurately as possible, what is being done throughout the State, I issued a circular asking eight questions, and sent out 78 copies to the commissioners representing all the different portions of the State. Out of the 78 sent out, 36 have been returned. The first question :

1. To what extent is drawing taught in the common schools of your commissioner district?

One replies not at all; 7 very little; 5 ranging from 5 to 25 per cent. of the schools; 4 from 25 to 50 per cent.; 3 from 50 to 75 per cent., and 15 in nearly all schools.

2. About what per cent. of your teachers are prepared to teach the subject satisfactorily?

To this the following estimate, was made: Twenty-two from 5 to 25 per cent; 7 from 25 to 50 per cent; 5 from 50 to 75 per cent. and one 90 per cent.

3. Are you deprived of many teachers on account of the severity of the uniform examinations in this subject ?

Twenty-nine answered no and 6 yes.

4. Is the subject growing in favor with pupils and parents ?

Twenty-three respond directly and indirectly, yes ; 5 answer no ; 3 can not tell ; 3 think it is with pupils, but do not know about the parents and 1 no.

5. How much practical benefit do you think is derived from the study?

To the above question, answers differ so widely that it is impossible for me to give you anything like an accurate summary; 10 think its benefits are valuable and speak very highly of the efforts put forth for its advancement; 12 think it of but little benefit, but attribute the defects to inefficient teachers; 4 answer directly none, and 9 have not yet concluded.

6. Are you troubled in finding proper text-books from which to teach drawing?

To this 30 say yes and 5 no.

7. Would you advise taking drawing out of the common school curriculum?

Twenty-five unreservedly say no; 4 yes, and 7 are undecided. They desire some special modifications to either leave it in or take it out.

8. How can the subject be made more attractive and useful?

To this comes 36 different propositions. Most of them with a suggestion for better teachers, 6 suggest better text-books and 6 I take the liberty of quoting.

1. By having classes organized in each county during summer vacation.

2. By having teachers as efficient and enthusiastic as Miss Rice.

3. By introducing natural objects. Have more color work. Have less abstract work.

4. By making it more free hand at the start. By correlating it with nature study and language. By advising teachers to study it more and complain less.

5. This question is too hard. Please ask some one who knows.

I judge that the foregoing opinions have been, very largely gleaned from rural schools and I am not yet prepared to believe that so little has been accomplished. We have desired to move more rapidly than the educational train is moving, consequently we are inclined to view the dark side of the question. We are hard to be suited.

I should be pleased to note in detail something of what has been accomplished, but my paper is already too long and I must forbear from farther intruding upon the time of the association. Permit me, however, to say in closing, that three purposes have been accomplished in as many years:

First.—Drawing has come to be seriously considered.

Second. Teachers are becoming interested and take up the work much more willingly.

Third.—Publishers are forced to turn their attention to the text-book side of the question which will soon result in a lasting benefit.

Commissioners, will you take these words to your teachers?

“We are not to wait to be in preparing to be, we are not to wait to do in preparing to do, but to find in being and doing preparations for higher being and doing.”

Miss Rice, State Instructor in Drawing.—I agree with Commissioner McElroy's paper — our efforts have been to condense this work in such a way that those who do not believe may learn to believe with us that we might, so far as possible eliminate from this drawing the long drawn out, unnecessary developing processes which may be all right in themselves, but which are to my mind, not adapted to the time and conditions of the public schools. If I am wrong in regard to this I am willing to be convinced or converted. In either case I am willing to accept any reasonable modification of my ideas.

It seems to me that if this is to be apart from the public school work it ought to be upon a scientific basis. Whatever we do in this respect we try to do as well as we can. We believe we have accomplished something ; particularly I notice it in the institutes by the dress of our lady teachers. We are not finding the combinations upon the hats and dresses of people now that we used to find. We are not finding the solar spectrum in a group of teachers, and we are not seeing the enormities that we used to see in the neckties of men. Of course this all comes from color work. I am pleased with Mr. McElroy's paper. He has taken the subject from an educational standpoint. He has judged our work fairly and criticised us generally, and I think appreciated the work upon which we have been engaged. I believe that our work will create a degree of refinement and culture, and must tend to make better and more desirable acquaintances and better citizens.

ELECTION OF OFFICERS

President Elwood announced that under the constitution the time had come when it was necessary to proceed to the election of officers.

The election resulted as follows :

President.— Commissioner Charles H. Howell, of Suffolk county.

First Vice-President.— Commissioner George G. Royce, of St. Lawrence.

Second Vice-President.— Commissioner Adelaide L. Harris of Niagara county.

Secretaries.— Commissioner Cora A. Davis, of Oneida county ; Commissioner D. D. T. Marshall of Jefferson county.

Treasurer.— Frank W. McElroy, Bliss, N. Y.

Transportation Agent.— Dr. Henry R. Sanford.

STATE LIBRARY FOR TEACHERS

COMMISSIONER MARY L. KNISKERN, BROOME COUNTY.

The teacher's library of the State of New York does not suggest anything old or dusty. There is no past record with which to inspire the present. It is not retrospective, but proposes for the future. It is a new problem, therefore anything that can be said must be more an expression of something hoped for, than a record of works accomplished.

That the teacher is the hub of the wheel, is not a matter for doubt or discussion ; but to examine into ways and means of strengthening the hub, is one purpose for which we are here met.

The aim of this library is to stimulate teachers to a higher grade of thought which shall become crystalized into action. Let us then keep ever in mind, that if these books accomplish their true object their light must shine in the teachers' life, and their thought must be transformed into action. From what I am able to learn I judge that teachers are not, as yet, generally supplied with catalogues, but show considerable interest in the plan when it has been mentioned at the institutes.

On examining the catalogue we find two distinct classes of books which may be subdivided, but not sharply ; for while many in each subdivision have distinctive features, they partake somewhat of the general character of the main division. I think it safe to estimate that at least 30 per cent. come directly under the head of professional helps.

If teaching is to become a profession it must be made something more than a means by which men and women can earn dollars. The time was when any one who could obtain a certificate and govern well, was considered perfectly competent to teach school, and this idea still prevails with many excellent people. The noticeable thing is, that while every one does not question the necessity of scientific knowledge in other professions, they have not expected it of the teacher. But, if we read the "signs of the times" correctly, the word is "forward," and we have already passed several mile stones on the highway of progress. Beginning with the system of uniform examinations, we have higher qualifications for teachers, a course of study and grade examinations for the rural schools, the recognition of and increased value of training class certificates, concentrated patriotism in the flag law, a compulsory education law, and last but not least the teacher's library.

If, then, teaching is to become a profession, it must have distinguishing features. Professional knowledge is scientific in character and special knowledge of laws, principles and processes should be demanded of the teacher as well as of the lawyer or physician. If there is a science of the mind to be studied and known, as

there is a science of the body, then it necessarily follows that a scientific or special knowledge is as essential to correct teaching, as this knowledge is necessary to the practice of law or medicine. Nature has hidden the precious metals in fissures of the earth. The miner does not get any gold until he digs. So with the teacher ; time, patience and energy are required, for labor will ever be the inevitable price of that which is valuable.

“ Not a truth has to art or science been given,
But brows have ached for it, and soul tolled and striven.”

Scientific knowledge is not easily obtained, but the teacher with the true professional spirit will dig like an Australian miner ; for he feels that it is duty to discipline and guide himself according to his responsibilities and the work which he has undertaken.

Judged by the title and outline given, a large proportion of the second class bear directly upon the formation of character ; therefore, I have called them character building books.

If the teacher's work is a work for humanity, then the teacher's requisites must be measured by the standard of the needs of humanity ; and any thoughtful observer must have discovered that in all classes of society there is a lamentable lack of that beauty and sweetness and noble dignity which characterizes true manhood and womanhood. If he is a true student of human nature, he must feel that the nation's greatest need is for men and women of character, whose lives express purity of thought, earnestness of purpose, strength and nobility of soul. For proof of this we have only to look on every hand and see blasted and ruined lives — mere drift-wood floating down the stream.

Among this vast number we find not only the ignorant class, but young men from the best of homes where culture and refinement prevail ; men and women with a liberal intellectual education, devoid of moral worth, victims of their own reckless and dissolute habits, who undo and destroy, whose power is that of the moth and the rust.

The immediate result of any system of education should be, not only practical power to apply the knowledge gained, but also a true kingly power, consisting in a strong moral and a true thoughtful condition, which operates with force, thereby enabling the individual to build, to ennoble, redeem, guard and guide. Life is short, life is earnest, and its true business is to be helpful to others, faithful to duty, lovely in word and deed ; and any system which is not a means to this end is simply a form of instruction and not of education. Pestalozzi even held that intellectual training was by itself pernicious, and insisted that the roots of all knowledge must strike and feed in the soil of the rightly governed will.

Though the instructor be skilled in technical and professional knowledge, other qualifications are demanded, which no examinations can test nor certificates verify. We do not undervalue professional skill, nor high mental attainments; but back of these there must be the teacher's strong, true personality, there must be the man or woman who loves the work, and feels that it is noble, whose spiritual nature has been fed until the soul powers are expanded and alive, and this kind of a man or woman is not made by machinery.

The teacher can render her pupils a most valuable service by training them in the choice of books. To create within a child a love for the good, the true and the beautiful in literature is to open a fountain of happiness and usefulness, deep and inexhaustible. This she can never do until she herself has drunk at that fountain. Dr. John Brown said: "It is the man who takes in who can give out." How then can we hope for the best results unless our teachers are constantly building up and adding to the riches of their personality? The State has opened wide the doors of a treasure house of knowledge and offers wealth that will not decay.

Subdividing, we find books having decided features, and likewise character-building in a greater or less degree. We first notice books for culture development. Do we not all realize that much of the literature of the day is low, and often entirely lacking in nutritive value? It occupies the mind, but does not strengthen or enrich. Samuel Smiles said: "Much of our reading is but the indulgence of a sort of literary dram-drinking, imparting a grateful excitement for the moment, without the slightest effect in improving and enriching the mind or building up the character." This habit not only imparts shallowness to the mind, making it low and feeble in tone, but discourages diligent and continuous application. It is true that "All work and no play makes Jack a dull boy;" but all play and no work makes him a far duller boy, and but little culture may be expected from the reading of those books which require no mind effort and which are read merely for the purpose of killing time.

To meet the public taste, books and papers are highly spiced and comic; "For the people must be amused." Slang is not disdained, and the most serious subjects are made grotesque. A love for excitement and frivolity seems to have taken fast hold of the American people which is expressed and catered to in much of the popular literature of the day. But, is it not true that in meeting the "public taste," this literature is more strongly forming the public taste? Contagious diseases are much to be feared, but many periodicals and novels are more to be feared, for while they do not mercifully kill at once, they blacken, poison and kill the soul beyond hope of recovery. If this literary garbage, more deadly

than the seven plagues of Egypt were consigned to oblivion, and the books here catalogued, placed in the hands of the rising generation, would there not soon be a noticeable change in public taste?

While the books in this subdivision do not seem so positive in moral strength and fiber as their character building companions, they are akin; but their special function is more to broaden, enrich and increase the individual intelligence, thus rendering the teacher a more useful and efficient worker. By reading books of this character one is enabled to enter into the companionship of his own enlarged and elevated thought, and is led to feel that there is something better in the world than mere sensuous enjoyment. He can say as did the sage when asked by the nobleman: "What have you got by all your philosophy?" "At least I have got society in myself." Character building is upward growth, climbing always up the rocky mountain side by steps of toil and struggle. Culture development leads onward over rugged hills, through rich and wide spread fields into a fair and goodly land, where velvet pastures and scented meadows and cooling streams abound.

We also find nature books, animate and inanimate. These have a peculiar charm and much value, and should be carefully read that the spirit of inquiry be awakened to know more about this beautiful and mysterious world of nature. The birds, the trees and the flowers are enjoyed by all, but for those who can interpret, there is bread of thought and even sermons in the stones. The soft, green mosses down by the silent rocks, and the tall mountain peaks kissed by the morning sun; the mist which softly lies in the winding valley and the dark, wreathing storm clouds beyond the wooded hills; the calm, clear lake where the water lilies gleam, and yon fierce, wild torrent which leaps and roars with gladness—all these are but stories and poems, and songs and anthems from the book of God's fair work. The pattering of the summer rain, the murmuring of the woodland brooks, the insects hum, and the rustle of the fading leaves are nature's lullaby songs, soothing the tired and restless spirit even as a mother stills her child. Creations music resounds for all. The poets have caught the melodious strains and imprisoned them in books. We of untuned ears may catch the sweet refrains and delight in the harmony of these eternal songs. Some of the poems of nature are peculiarly rich and sweet. Though not catalogued, what can be more simple and beautiful than some of Riley's nature poems through which gleam the rosy tints of his boyhood days. The Brook Song, the Beetle, the South Wing and the Sun, Green Fields and Running Brooks, and Old Fashioned Roses are but the echoes of nature's wonderful music. Only those who live in close and loving contact with the great heart of Nature can portray such true and living pictures.

The study of Nature tends to keep the heart ever young and strong, and in loving sympathy with childhood and youth. This is one of its brightest features. Not altogether unfortunate is the child whose early days are passed in the country and who must perforce attend the rural schools. Living in contact with nature he gathers strength for the future and stores up associations whose memory becomes to him like the fragrance of the flowers. Though in later years he dwells in narrow rooms and walks the crowded streets, ever and anon he hears a-down the east, the tinkling of memory's bells. Again he walks with rested feet through fragrant fields of green, by fern and vine and blossoming tree. Once more the shadows fall softly toward the west. His brow is fanned by cooling breezes, and joy enfolds him as the morning mist. The beauties of Nature and the memories of childhood are intermingled and woven into the very fiber of his being. Who shall say that the pattern wrought will not be more beautiful because of the golden threads which entered into the warp and woof of the fabric.

Oh! the wonderful land my mem'ry holds dear!
 Though it lieth afar it is sometimes near,
 It holds not a sigh, nor a sob nor a tear,
 'Tis the land where the roses grow;
 Where they bud and they blossom all through the year,
 And their fragrance is wafted me even here
 On the breezes of love that blow
 From the land of the Long Ago.

If we search carefully we shall find scattered like gems, books with which not even a speaking acquaintance can be made in the time allowed, among which we notice Whittier and Longfellow, the works of Shakespeare, Ruskin and Smiles; the life of Washington, of Lincoln and other builders of the Republic. We need years not weeks with books like these, and it were better were they the companions of a life-time. Lord Bacon says: "Some books are to be be tasted, others to be swallowed, and some few to be chewed and digested." The teacher may get a taste and swallow of the general book in the time allowed, but these are to be chewed and digested. Says Ruskin: "We do not need many books," and Luther expressed the same thought when he said: "He that would study with advantage in any art whatsoever, ought to betake himself to the reading of some sure and certain books oftentimes over; for to read many books produceth confusion rather than learning, like as those who dwell everywhere are not any where at home." Lincoln proved this truth. His seven books were sure and certain, and he read them oftentimes over. We can not doubt that they were largely instrumental in the molding and development of that wonderful

character, which so blessed and redeemed humanity. The educative value and formative power of sure and certain books are not sufficiently understood. This library can not, and was not designed to take the place of a few choice books, owned and loved, and read again and again.

We are now confronted with the most difficult part of the problem, for if these books are not read they are as worthless as blocks of wood. In reply to my letter of inquiry Superintendent Halsey says: "The problem which you suggest of inducing teachers to read and love solid literature which tends to strengthen the mind and build up strong and enduring character is a most difficult one. If you can solve it, you have solved the most difficult problem in education." It is clear that the solving of this problem is a slow and patient work, and if ever worked out will require years of searching thought and untiring effort on the part of educators; but here is an opportunity, and we believe a duty for the school commissioner. Interest and earnestness will here prove his gift of gifts. First, let him look within and see if there is firmly planted there the root of true wisdom, "For of thorns men do not gather figs nor of a bramble bush gather they grapes." The commissioner should classify and become familiar with the contents of the catalogue, then distribute, either at the institute or on his visit of inspections. As we have a spring institute I have adopted the latter plan, and have supplied about eighty-five teachers. A blank was also given the teacher accompanied by a few words of encouragement to make early use of the same. The more progressive a teacher becomes the more clearly will she realize her weak points and feel the need of re-enforcements. The commissioner being familiar with the catalogue can give suggestions as to classification and the selection of helps along each line of professional work.

The commissioner should always encourage teachers to read character building books, but which particular book or author must be largely a matter of individual taste. That I find in the writings of Ruskin, Emerson and Whittier that which is inexpressibly beautiful and helpful to me, does not imply that others must read those very books that they may be led into higher and clearer sight or strengthened for wider fields of usefulness. Here are the works of the greatest men, leaders, statesmen and thinkers. Here is knowledge, disciplined, true and tested. Here are faithful friends who condescend to be ever at our side to encourage and to cheer. This society, numerous and gentle, is open and at the choice of all. The State has called her teachers to enter and take rank and comradeship as they will.

Though the commissioner may do much to push this movement, he can not do it all. A few other duties occasionally demand his time and energy. That this new departure may succeed, not only

must there be hearty, intelligent co-operation with the Department of Public Instruction and the school commissioner, but the Department should go still further and complete the good work so well begun. Trusting it will not seem inopportune, I beg to offer a few suggestions. First, as to extension of time: In reply to communications I give the following: One of my first grade teachers says: "I could not read some of the books catalogued, would recommend at least six weeks." Commissioner C. O. Hill: "I think the time might well be extended to two months." Commissioner LaRue: "The time that a book may be retained is not sufficient. It should not be less than six weeks." Commissioner Smith, says: "One can't read much of a book in a month's time while teaching. Conductor Hendrick: "I consider the time (one month) time enough to read a book which is not worth owning. If the teacher wishes the book longer, I should consider it evidence that the book should be always at hand to refer to and for rereading." This is very true, but teachers who receive from five to ten dollars per week, minus two dollars for board can not purchase every book which they may feel is worth owning. Permit me here to give the contents of a letter received from one of my rural teachers, a resident of Pennsylvania: "Yours of the 30th just received. On account of my taking up drawing and singing I have drawn but one book from the teacher's library. That was on psychology and education and I believe it was of practical value. I will explain. I had never before made the science of the human mind a study and it seemed to me an unfathomable mystery, but when I saw that several books on that subject were catalogued I decided that a knowledge of psychology was attainable after all. Please do not understand that I think I have mastered the subject; I have simply had my eyes opened to the possibilities of the mind, if rightly trained, and some idea of the correct way of developing it. When I have time to read another I shall get "Psychology Applied to the Art of Teaching" by the same author.

I can not speak too highly of this advantage which New York State gives its teachers. It is one of the main reasons that I have decided to teach hereafter in that State if circumstances permit. As to the length of time given for the reading of a book I could wish for myself, it was longer. I think a teacher could read one thoroughly in connection with her school duties if those were the only duties she had; but considering the demands on a teacher's time socially, even if she be not given to dissipation, four weeks seems short for a thorough digestion of a solid book. I believe, however, that if the average teachers can all be awakened to the fact that this is an opportunity, which if carefully improved, will almost compensate in their education for the lacking privileges of

the higher schools, in cases like my own where too poor to attend a normal, there will be an able lot of teachers in your county and State."

In cases like this where the book is developing the mind and strengthening the teacher for better work, and she can not purchase, would it not be wise to extend the time at least one month? To require the return of the book in the height of its usefulness is in a measure frustrating the desired object. It is evident, I think, that the teacher should have the privilege of retaining the book another month at no expense save the sending of a postal, which shall be placed on file at the Department, the acknowledged receipt of which shall say to the teacher that the desired extension is granted.

The Department may increase the usefulness of this library by requiring teachers to read certain books before receiving advanced certificates. The number should be very small, one, two, or possibly three, and we suggest that at least one be a positive character building book. Commissioners shall be supplied with printed slips, designating what books are required for each respective school year, a copy of which shall be attached to each third grade certificate issued. This information shall also be noted on the regulations. The uniform questions for certificates above the third grade shall cover these books, and shall be classed among the average subjects or not, as the Department may deem best. At first a standing of 50 per cent. only might be required. This seems entirely practicable as all certificates are soon to be issued at the beginning of the school year. This subject should be given special attention at the institutes. I do not know to what extent this has already been done. Horace Greeley once said, "I judge that most men float or drift through life; they aim at nothing and hit it." There should be no floating or drifting in this most important matter. The Department should aim to bring this subject before the teachers of the State in its full importance and significance, and then hit the mark. The State now sends out a lecturer and employs special assistants to explain and enforce the compulsory law. Concentration gives force and power. Why not send some one to present this subject at the institutes, who can say, as did Saint Paul, "This one thing I do." That person must be a lover of humanity, one who has been builded up, strengthened and ennobled through books — who has made them companion and friend. Let the Department find that man or woman with a spirit akin to that of Horace Mann and send him or her on this noble mission. Will not these suggestions, if acted upon, make the plan more feasible and thereby increase the number of teachers who will receive the healthful and refining influence of strictly first-class books? We believe that the Department holds the golden key to the situation.

Among the many advantages which will be derived from the library: Teachers will become interested in good reading and as a result purchase a few books which will become the nucleus of a little home library.

It will help teachers in the matter of enlarging their stock of language and lore from which to draw in their class-room illustrations. It will also be found useful as an assistant in reading circle work. One of its best features is that first-class books are offered at reasonable rates, and teachers are allowed to examine before purchasing.

This whole great work — this inculcating in the minds of the young a love for the good, the true and the beautiful is nothing more nor less than the training of immortal souls. As the flowers turn their sweet faces toward the sun so the young soul grows toward that which it loves.

In true educational work a two-fold object is in view — individual and national advancement — and water can not rise above its own level.

“ The riches of the commonwealth
Are free, strong minds and hearts of health;
And more to her than gold or grain
The cunning hand and cultured brain.”

Not only the intellectual growth, but also the moral growth of a people, determines what its future shall be; for as the heart-life of the individual is, so must the life of the State and nation be.

The telegraph wire conveys the message. The teacher is also a conductive agent. God, and truth and nature are the fountain heads; but the teacher conveys only that portion of the message which she absorbs. The rich harvest fields of truth and wisdom are always ripe and free. Gleaners have been in the fields and gathered stores of the choicest grains which are bound in golden sheaves and offered without money and without price. Will the teachers of the Empire State choose the solid wheat or feed on dusty chaff?

For our encouragement to faithfulness in this work let us take the words of Pestalozzi, engraved upon his tomb, “I have lived like a beggar that beggars might be taught how to live like men.” If this be not enough, let us add the words of our own Horace Mann, the closing sentence of his address to his last graduating class at Antioch college: “Be ashamed to die until you have won some victory for humanity.”

Commissioners, it is worth something to have followed, though afar and with stumbling footsteps, in the pathway trod by such as these.

SCHOOL LAW

Hon. Danforth E. Ainsworth, Deputy State Superintendent of Public Instruction made an address on school law. His remarks were in the nature of informal talk on the subject and were not reported.

WEDNESDAY EVENING, JANUARY 6, 1897.

Meeting called to order at 8:40 p. m.

President Elwood said.—If we were asked to name the chief school inspector of America, I do not think we could name any other gentleman than him whom we have with us to-night. On this account I take pleasure in introducing to you Inspector James L. Hughes, of Toronto, who will speak on

SCHOOL INSPECTION

Inspector James L. Hughes said: Mr. Chairman, Ladies and Gentlemen.—I wish I had earlier known the exact character of the audience that I had to address. I have been a school inspector for what you would call 23 years, and I never spoke about school inspection before. I never wrote about school inspection and I must confess I do not know whether it may be a surprise or otherwise to you, but I would a great deal sooner speak about some subject that I know less about. I believe I can speak about some theoretical subject better than I can speak on the subject of school inspection.

I think you are chiefly school commissioners, the men who have charge of the schools throughout the State of New York and I have decided, after seeing you, that I might talk about the functions of a city school inspector or city superintendent.

I may say at once that so far as inspection is concerned I have no sympathy whatever with the process of inspection that prevails in what we call our mother land and in Canada, where the inspector is chosen for the purpose of examining and do the marking of work done in order that the government of England may know just how to distribute the money at their disposal for the schools. Schools there, as you know, are largely supported by government grant and therefore they send these inspectors out.

We have none of the marking system in our country and hope you have none of it. If we had, I would be quite willing to accept the position that was given to me in Toronto some 20 years ago. To a little child in some of her school work, the phrase his "satanic majesty" occurred and the teacher to be sure that the little folks knew the meaning of this phrase, asked if any one could tell who was meant. Who is his satanic majesty? After some hesitation a little one raised up her hand and on being asked replied, "Please, it's Inspector Hughes." Of course she was very young and I hope I was not exactly worthy of the reputation she gave me. How-

ever, I would like to be the opposite of that in every respect so far as the teaching of our schools and the development and inspection of our schools are concerned.

A school inspector has varied functions toward four classes of people: First, to the board that appoints him; second, to the teacher; third, to the pupils, and fourth, to the people at large.

In the matter of my duties to the school board, I feel that I should be a counselor adviser to the school board. I should advise them in all matters relating to the engagement of teachers, to the promotion of teachers, the transfer of teachers, classification of the schools, the courses of study, the use of text-books, the purchase of the right apparatus, and the ventilating and the heating and everything relating to the welfare of the schools. In our country we are very much more restricted than you are. We have nothing whatever to do with the use of text-books.

I claim that the teacher has a right to have his expression of opinion in regard to the processes which he has to carry out in his school and of the work that he is to do, and also of the material that he is to use in the completion of his work, and therefore, so far as possible with all the wisdom of my 23 years, I would not claim that I should use my influence in regard to the management of the schools, the course of study or any work relating to the detail without first consulting with the teachers who are to carry out the details. We, as superintendents, should never grow too old to learn from the youngest teacher. The teachers know that they should never grow too old to learn. The inspector should be an energetic officer. We may be county commissioners or whatever your board decides, and when they have decided anything the inspector is the man who shall execute that decision.

We need a great deal of tact to carry out the work satisfactorily and restrain the too progressive members of the board, and to help on the too conservative members and keep harmony between the two. The inspector should always visit and examine the schools as an officer of the board; he should also prescribe the forms for returns whatever they may be, that are necessary to make to his commissioner, and he should make the annual report covering certain matters relating to the school management and the different departments of work.

The next part of the subject is the duty of the inspectors to the teachers, and is by far the most important part of his work. Primarily, the inspector should be the friend of the teacher more than anything else. They need his sympathy and his help.

I can do no good to any woman or man until that teacher has appealed to me. We can not enter into the inner life of the teacher to carry it along until that teacher believes in me, and I can not make that teacher believe in herself until she believes in me. The

teacher should always welcome the inspector and there should be nothing in the manner, tone or address of the inspector while he is in the teacher's room either to distract the attention of the pupils to himself or to make the teacher in any sense shrink into herself. The man who is able, or the woman who is able, to go into the teachers' room without making the teacher self-conscious, without disturbing the usual condition, is the proper superintendent or inspector so far as that part of the work is concerned.

The timid and faithful teachers we need to help the most. I do not know any way that I can help a teacher better than by saying, "I believe in you." By giving credit for what is good, we give the teacher a faith in herself, which is the first element of true development. When I can say to her "I believe in you," it ought to help very greatly. I believe this is true in all the schools, and we should develop the good rather than search for the bad. I think the Puritans in the past have been largely to blame for the fact that the whole world has been looking at the bad rather than at the good. I give new power to a boy or girl by giving them the work of a neighbor and by pointing out the excellence in that. I always try to give a teacher faith in herself. The man who is a discoverer of power in another, who can see beyond the exterior, who can see what is your best power as a teacher is best fitted to guide and advise.

Teachers should study character in order to understand their children, and we should study character in order to understand our teachers and to tell them what is required. If, when we go into a school, we can make the teacher able to reveal herself as she should without having that self-consciousness, we have done a great deal. The ideal condition in the city would be to have the teacher so fond of the inspector's visits that they write to him and say to him that they have something new. "I have here something I have never read about in the School Journal or any text-book." "I tried something that I thought about myself." "I have tried something, come and see it." There are no letters I get I enjoy so much as that kind of letters. There are no such movements in my inspector work as when the teacher comes to my office after school some afternoon, and without hesitation says, "I have tried something in this line or that line. I would like you to come to see it."

I never leave a class when the teacher has failed. If a woman fails in my presence with an arithmetic lesson, I suggest some other lesson. What do you do best? What is the very best you have done since I was here before? Then I ask the children to read, to give her time, and when they have read the time, she starts the work and succeeds with it, and I leave her, if it is possible to do so. We should know these teachers individually in the

city. I do not mean know them so that we can distinguish Miss Jones from Miss Smith, but so that we know them as the teacher should know the child. Teacher study is the same as child study between the teacher and the child. The inspector should know what their several powers are, their personal history. Such a friend as I have described, teachers will follow with delight. They will take suggestions from you, even take instruction from you with pleasure. Personally I never like to give instructions. You should give directions if you have to, but the suggestion is what ought to be given.

I know nothing more melancholy than superintending and getting almost discouraged because we are so thoroughly misunderstood in our suggestions. As the old lady, when she got her first tea, after cleaning and tasting it, she did not like it as well as the cabbage in her own garden. Of course, we are misunderstood sometimes, but I always am disposed to be hopeful and sympathetic.

The inspector should be the leader of the teachers. He should develop in them the power of investigation and should be able to enlighten them with some plans and to do certain things, so that they will be able to live for themselves after you have gone, and not be merely imitators. There are two kinds of imitations. The unconscious imitation of a little child, and the conscious imitation of another sort. Whether it be the conscious imitation of a copy headline or blackboard, if it is imitation simply, if it is anything more than getting new power into that individual, that imitation is weakening.

We should keep along the line of agreeable, plain, practical pedagogy and the fundamental principles of psychology. I do not know that you can do that very well in your districts, but we can in the cities, and the teachers should be brought to try, and should get into his or her life these elements of the great ideals of the past, the ideals of those great, brave souls of literature, the great thoughts that have gone beyond the race, and have given the thoughts to which we are climbing now, to teachers and all the people in the world, so that the race should get these thoughts, even in dim consciousness, that they may grow toward those thoughts.

The inspector himself should be the leader in professional culture, should see that the teachers have all the good journals, and see that they study a few good books. There is a revelation in the books, in the thoughts of great men. We should guide our teachers with the teachers' meeting, the general meeting of the whole staff. We should guide them in self-culture or in what imposes that.

The greatest human weakness is lack of faith in ourselves, and we should develop and put that ideal into a child's life or into the teachers' life. They will grow to fill any position they may

come into. You can not give him too big a position if he grows to fill it, although they should rattle around in it a little at the first, if you give them the conception that they have all the power to accomplish it.

I like to say to a teacher when she comes to my office, I like to tell her, "You can do better than that." I like to say to a teacher, "You have power to do better for that boy than that." Nothing will justify a teacher in making a boy worse. Every boy, no matter how trying, has a good spot, a weak spot in his armor, and that once penetrated, the boy is won.

I do not like to make suggestions of any kind any further than the general suggestion, you can do better. I can not make as good a suggestion as you can yourself; but I ought to do my own thinking out of the problem. I may point out the problem, perhaps. All are problem founders. It is better than problem solving.

Our teachers should be organized. All the teachers of our city were organized into a club, but it was so large that it has divided into three parts. They choose their own subjects. I have no right to choose a subject for you to speak on. We simply see that it is something connected with our school work. The purpose is to train them and give them experience.

I say that the children in the schools and the teachers I like, that they have speaking clubs and choose their own subjects. Get your teachers into the rut, not merely speaking themselves, but in having their children speak, and in that way get them to speak their best.

There is nothing better than sometimes to give practical illustration of your good teaching. Quite recently I spoke at one of our meetings of a man. He was a new man, who knew how to discipline; that is to say, he had grown up about 6 feet high and he could take a boy or girl 30 inches high and make that boy or girl quake. I spoke at a certain meeting in regard to a report I heard, that he had punished a little girl about 8 years old. The reference was made without mentioning any names. Next morning two principals came to my office and explained how they came to do such a thing. Neither of the principals was the man I meant at all. Later I saw the man who was guilty, and he was astounded.

I believe we should develop the consciousness of our teachers along that way. It is a blessed thing in dealing with your teachers to show the better way without humiliation to them. We should never let them go without a goodbye.

Bless the publishers. Bless the societies. We have regular lectures in the city, and our more advanced pupils get the best lecturers in the university on scientific subjects that are interesting to the children. We have had clubs and organizations, and

every school should have a botanical club. We organized in Toronto through a class of young ladies who are being trained in the training class. We have had them take their turn in speaking on any subject they choose to speak about. I tried to fill their lives with a consciousness of the nature of young life. A young lady took up the subject in a very practical way, and gave us a little book published in England called "Mary's Medal." It described a society in England for the purpose of planting flowers all around where they were not growing. "Mary's Medal" societies are for the purpose of protecting the wild flowers especially, and planting them where they do not now grow. I want you to help start it in New York. We might do a good deal in that line, not merely for the sentiment or for the botany of it. I mean in the consciousness that comes into the child's life, and that you can not put into it in any other way; the consciousness that comes from tending these plants.

I believe we should have child study among parents as well as among the teachers, and should learn to train children, how to live and how to bring the whole race up together and uplift them. I have had the privilege of examining Mrs. Shaw's work in Boston, and I do not think her glorious father, Professor Agassiz, set a better example of interest than did she when for 11 years she supported all the kindergartens of Boston while the authorities were calmly investigating to see whether it was right or not. We have seen the work of Mrs. Hemingway in Boston, when she taught physical culture. Yes, women outside of school boards have introduced a great many of the new progressive ideas into the United States, and last winter I had the privilege in Syracuse of seeing the work of Mrs. Halsted and her splendid husband in connection with the schools.

The school, the home and the church are one, and should draw the great chariot of civilization along, and we are going to be a unit, and to co-ordinate, and we ought to be the movers in accomplishing that great work. We should be the directors in school affairs, and they are the highest agencies in the uplifting of the people to a higher and grander and nobler plane and fitting them for higher and nobler work.

I thank you for your attention and for the privilege of talking to you.

Superintendent Griffith, of Utica: I think that those of us who are here to-night and listened to such an address must feel gratitude in our hearts for the address. I have never listened to Superintendent Hughes without being helped and uplifted; he, himself, being, not only in his inspectoral work, but in public address, an inspiring force in our profession, and, sir, it gives me great pleasure to move a vote of thanks to Inspector Hughes for the address of the evening. Motion carried by a unanimous rising vote.

THE OPPORTUNITIES WHICH THE TRAINING CLASSES OFFER COMMISSIONERS

F. V. LESTER, SCHOOL COMMISSIONER, ESSEX COUNTY.

As some one has very truly said—this is an age of progress. There has been advancement all along the line. All trades and all professions have felt and are responding to the spirit of the times. We are no longer suited with the slow going stage coach, even the steam car is rather slow. The scientist has caught the lightning and yoked it to the chariot of man.

In the midst of all this bustle and the whirl of advancement, standing on the very front of the car of progress, his hand on the lever is the school-master, the aforetime knight of the rod. Do not think that I have claimed too much for education and the educator! Locke, says: "Education in its widest sense is the moulding force of life. It is education which makes the great difference with mankind."

Again this is an intensely practical age. What men want is practice, not fine spun theory; deeds, not words. If the school-master would continue to control, he must keep abreast and even a little in advance of the demand of the age. We are perhaps justly proud of the educational system of our great Empire State, yet there are some clouds upon the educational sky. We must acknowledge that we have all too few professionally trained teachers, and not even all of these are real educators. This condition is due in a great degree at least to the laws under which licenses are granted.

These laws should be changed. No professional training is required as a prerequisite for teaching. This accords with the notion that any one who, by hook or crook, can pass an examination is perforce fitted to teach school. This is the condition not only in the rural districts but also in the cities.

Fellow Commissioners.—We are told that some of our country schools are very poor—the teachers are failures—the children are growing up in ignorance. Yet the teachers in the district schools are, I believe, just as earnest, just as conscientious as any. They are not mere time servers as some would have us think. But many of them are discouraged. Some of them, perhaps the most of them, have taken up the work of teaching without any definite understanding of its demands. They have been told that it is easy work, that the wages are good. The State has granted them a certificate and by it pronounced them qualified to teach. They enter our school-rooms. They may never have had a day's training in the science and art of teaching. They may never have been even in a well-conducted school; may never have thought of any of the relations which as teachers they must assume.

But our legally qualified teacher enters that school-room. That teacher, whether a young man or a young woman, has been placed in a most trying position. Suddenly the gravest responsibilities are assumed — the thousand and one problems that confront one must be met and solved. As Horace Mann said to David Page the State might say to our perplexed teachers: "Do or die." For to make even ordinary success under such circumstances the teacher must be a genius, and, if he does more, we may well call him a hero.

But it must be confessed that where one carries off the victor's palm, many more fall out by the way.

How many of these last may say:

"to be pinioned down to teach
The Syntax and the Parts of Speech,
Is a service irksome more
Than tugging at the slavish oar."

And how many of them look, as Charles Dickens said:

"Worried and tormented into monotonous feebleness."

The experiment is too costly. It takes too much energy from the teacher even if he succeeds. It ruins the mental powers or at least retards the development of too many pupils, and when the teacher fails, which happens with terrible frequency, the cost paid in diminished power of citizenship is too great to be computed by the ordinary rules of arithmetic.

If it be a fact, and I think it is conceded, that many of the graduates of our normals make only indifferent teachers thus showing that teaching is a difficult and exacting profession, have we any right to expect that persons without any such training and experience will succeed?

The carpenter must serve his apprenticeship and have some additional experience before men will trust him to erect that perishable cottage, but the veriest novice may be employed as the architect of an immortal mind. The one must be very careful not to waste any of the material furnished, the other with that which is far more precious than ever came from mill or mine, may be prodigal — without stint in the experiment with human souls.

Let me not be misunderstood! We have some very excellent teachers who apparently have had no professional training, and we also have some very ordinary ones who have had such training. This is due to that unknown quantity — call it soul power — mind knowledge — character or what you please. It can only be determined by the solution of the equation:

Teacher + pupils = x.

That untrained and inexperienced teacher succeeds, because, having that x power, he supplemented it by reading and studying books

which treated the problems of the school-room. Page, De Graff and White are still in a certain sense teaching in our schools. This teacher, professionally trained though she be, failed because she had not the x power.

Yes, "training is not all, education or rather book-learning is not all, method, system, apparatus, libraries and so forth are good and necessary, but back of all and above all there must be a man or a woman with brain power, and endowed with the strength of a pure and lovely character."

Not all poor teaching is done in the rural districts, for in the cities, many schools are dead affairs and many teachers are real failures.

Our State trains for citizenship. To attain this end, we have universities, colleges, high schools, grammar schools, schools professional and schools technical. Second to none, the teacher stands as a trainer for citizenship. How important then is it that we have good teachers! But good teachers become such in two ways, namely, by experience gained after years of practice, or by training at the hands of skilled instructors. In the State superintendent's report of 1895, I find that of the teachers in the cities, a little less than 10 per cent. were licensed by the normals, and the State superintendent; in the towns a little more than 13 per cent. were thus licensed. In this statement no mention is made of those who have been trained in the training classes.

Perhaps of all agencies for the training of teachers, the training class may claim to have been the first on the field as well as the most effective. The normal school at Oswego, of which we are so justly proud, and whose reputation is not bounded by national limits, grew out of a teachers' training class. Canandaigua academy, by such a class, did much for teachers long before the State took up this work, and the course offered at that school compared favorably with that given much later in the normals. These classes with their requirements, both for admission and for graduation, offer many inducements and advantages to those who wish to become teachers. . But what concerns us especially as supervisory officers is that they can and ought to furnish trained teachers for our schools.

As shown by the superintendent's report of 1895 over 74 per cent. of the school population in the country attended school some part of the year, while in the city it was less than 49 per cent. showing that in the rural districts, the parents are anxious to have their children educated, and from such districts have come many of the most eminent men of the State in every line of material, industrial and educational progress. While the normal schools graduated, during the preceding year, about 600, the in-

crease of the number of normal graduates teaching in our public schools was only 140.

An incompetent teacher is as harmful to a district school as would be the failure of a crop of grain or any other product of the soil. No school is so small that it should not have an efficient teacher. The fallacy has long been exploded that because a school is small any one can teach it. The time should be hastened when the teacher's experience shall be acquired not entirely at the expense of the boys and girls. Next to normal graduates must stand the graduates of the teachers' training classes, if efficient work be considered. Yet in the reports of the school commissioners of last year, i. e., of 1895, only 24 spoke in favor of them, five did not show by their report whether they favored them or not, and the rest did not mention them at all. Now, as teachers' classes afford the only professional training that a large part of the rural teachers ever attain, it is highly important that these classes should be encouraged in every possible way.

The qualifications of a teacher as given by Dr. Milne before this association at its last meeting were as follows:

First.—Power of control. Every born teacher is greatly helped by preparation for his work.

Second.—His education must be thorough in what he teaches.

Third.—He should know how to apply proper methods of teaching.

Fourth.—He should know something of general culture.

Many of the best pupils in the academic departments of our union schools come from the rural schools. Our schools must have trained teachers. These schools are important. It is not numbers that make a school. It is not fashionably dressed children. It is not quantity, but quality.

We have had but one Webster, one Washington, and what would the millions of freed men in the south have been, if it had not been for that one Lincoln!

We must not neglect the rural school. The normal schools do not supply the teachers. The training class must, or the schools suffer. Let me repeat, there is a science of education with well defined and established principles which should serve as guides to the teacher, and good teaching and successful school management is an art which must be learned either by careful and definite instruction or by school-room experiment, of which the pupils are the subjects, and too often the victims.

The training class offers such instruction. The course laid down seems to me most excellent. The instructors are approved by the Department, and therefore their qualifications may not be questioned. The classes are well distributed. The graduates, when they

take up teaching, do work of a very high order. Let me read you a statement concerning their work as given to me by a parent.

"Our school was practically of no account, being used as a place where raw material in the form of an inexperienced young person of 16 or a few months over, would begin to be moulded into the likeness of a teacher. But finally chance or providence sent us a teacher from the training class; then Bennie woke right up and was soon filled with the desire for an education." But the demand for teachers from these classes is far beyond the supply. Yet the classes are not filled. Why? This seems to be an unfortunate condition of affairs. These classes should be filled. The commissioner should encourage worthy young people to enter them. He should assist the graduates to good places in the schools. This last is his duty, for they are his professional teachers. Let the advantages derived from these classes be fully known. Ask the Department to extend the time of the certificate from three years to five, and make it even more desirable than a first grade as it should be. A first grade demands no professional training and is often obtained on very poor educational qualifications. Also let the Department grant no license for third, except on an examination in methods and school economy in addition to the subjects now required. If that would be too many subjects, drop out United States history or school law; by all means have method. Such an examination, it must be confessed, would be but a poor substitute for training, yet it would be a step in the right direction.

The rural teacher needs the inspiration that comes from the history of education. Let them be introduced to the grand old masters. Let them drink at those pure fountains of thought. But do not ask them to drink too deeply at first or they will quaff no more. Perhaps the course now covers too much and may tend to discourage rather than excite interest. Let them know a few of the great educators, but the grand principles and precepts of education still better.

May they meet Page and from him learn how to manage a school. May they hear from Horace Mann words of inspiration to noble deeds. From Froebel and Pestalozzi they will learn to understand childhood. From the culture epochs of Herbart may they be enabled to inspire their pupils to an attainment of the highest culture.

Let them, in fact, gather gems from the treasure houses of the past; from Arabia, Egypt, Greece, Rome, from the cloister or the mart, and having set them into the crown of character, place it on the brow of American citizenship.

SYMPOSIUM: HOW SHALL SCHOOL COMMISSIONERS BE CHOSEN AND WHAT LEGAL QUALIFICATIONS SHALL BE ESTABLISHED ?

PROF. STOUT, INSTITUTE CONDUCTOR.

When we talk about ourselves it is always a matter of interest. The question of the qualification of school commissioners has been discussed for years. I remember the first commissioners' association that I ever attended, within four days after I had assumed the duties of the office and had been provided with a code of public instruction, etc. We were imbued with the idea that it was the proper thing to change something about the commissioners' work. I have grown older and have received this problem from two standpoints after these years. It is necessary to know what qualifications are required for this office, which is administrative and supervisory. It occurs to me that the two kinds of duties run along parallel lines. There has been a transition in the lines within the past few years. At the time of my own service there were no uniform examinations. There were not many teachers' institutes. You had to work out your own career. You were the sole judge, jury and district attorney in the case. The result was that the office predominated very little from the administrative standpoint. Within the last few years we have been approaching the point where supervision comes to the front so much more than formerly, and we can conceive the qualifications that may be found by some examination of some kind that would determine whether a man is fit for this position or not. I must confess that I have never yet seen an examination that would determine a man's administrative ability. With these two lines in view, it will be necessary for us to analyze still further. Granting with me, as I think you will, that the only qualifications that we can determine as called for, will be such qualifications as will determine the person's fitness for the supervisory part of the work. The supervisory part of the work requires not only scholarship, it requires not only special scholarship along the line of education, but it also requires another thing that is worth more than any technical training that can be given by any training school, that is, experience in the schools, and in the community which the person is supervising. If he can have but one I should prefer that it should go along the line of experience as worker in the schools, but it is better to have the two qualifications. I am a believer in some standard of educational qualifications. You remember when it was demanded that a commissioner be a college graduate or hold an advanced regents' diploma and State certificate. This was the entering wedge, and when we simply suggested that there should be one more license, that he should hold a license to preach, which would be a guaranty of his moral character, they called it irreverent.

We shall never have qualifications for school commissioners, in my judgment, until we clear decks for action and make qualifications fit the man.

I do not believe that there is a single college graduate in the State of New York who is not perfectly free to take the test. We have commissioners in the State of New York who were eligible under the conditions provided, and who passed it, and have passed it well. Let me call your attention to a few things. Any man, so long as salaries remain where they are, who can secure a salary of \$1,200 a year, is a fool to be a school commissioner. He is absolutely tending to imbecility. I can not comprehend how a man leaving a school-room could hope to take the place; but the office is a peculiar one; the better you do your duty the less money you have, or that is the present condition. I was unwise enough to take the office. As the years went by I knew more and more, and finally I had to get out to pay my debts. It took a long while to do it.

If we look for an elevation in the school commissioner, there must go with it a corresponding increase in emoluments. The college man who wants it, as I have found, is the young man just out of college, who is no more fit for a school commissioner than a child. He lacks judgment and lacks tact for the office. The other college man that gets the office, through the country, is the man who has tried everything else and made a failure of it, and the result is he is looking to be a school commissioner. If there is to be a demand for qualifications, let it be along one line, that is, that the man has scholarship enough to do business decently, at least, that he have special scholarship enough to know whether the work has been done along educational lines.

The next question is, how shall the man be chosen. There are a great many men that I want to see remain in the office. The more of such matters that remain in politics the purer will politics be. The people will be interested. Shall we have them appointed? An appointive office is in politics and will stay. It never gets out. But they say, we get a better class of men. Where politicians nominate a poor man he is almost sure to be defeated.

The county judge should appoint, and most of the county judges will look around and appoint competent men. I want to say that I have seen the personnel of the commissioners of the State of New York under our present system. I have seen it and what is more, we to-day are living in one of the worst examples of what politicians will do. Let me go back to 10 years ago this fall. There had been an election held. Do you know that it is a fact that over 25 per cent. of the school commissioners elected by the people were elected in direct opposition to the politicians of their respective districts and under ordinary circumstances. I am perfectly

willing, so far as I am concerned, to make the office an elective office and trust the people to select the best man; but there are cases in sections of the State where this could not be done.

Another thing, school men seem to have an idea that they ought to have a monopoly of all school matters. We have heard school teachers say that it was a shame because a lawyer or physician has been chosen school commissioner in the several districts. Let me say right here, with all due deference, I am forced to admit that probably many of the best school commissioners the State of New York has ever provided, we have taken from other professions. It would be well to have some standard qualifications. If placed along the line of examination we can only determine one thing, that is, the question of scholarship, the question of scholarship which relates entirely to supervision of schools, or to leave to the intelligence of the people, of nominating conventions or to the intelligence of the appointive officer, such as the county judge, the qualifications of the individual as to his administrative ability. We should insist only upon such standard qualifications as shall exclude men who are evidently incompetent and are unfitted to transact such business as they may properly be called upon to perform.

I believe it is wrong for a body of school commissioners to decry the work of school commissioners, and also the body of school commissioners in the estimation of the public, by making it a point to call attention constantly to the defects that will be found in our 115 commissioners, whether elected or appointed. It would be better to call attention to the good men and the good work that has been done by the school commissioners of the State of New York and the heart and soul that many of these people are putting into their work.

I really can not comprehend to-day why it is more necessary to take the office out of politics and put qualifications upon commissioners than upon the State superintendents. I know there are some of them here who will probably admit that they are doing well and that they could "get there" without the political wave.

I shall not cavil, if I find the standing of this body rising as it has risen since I have been a member of the association. Sound educational growth in the school or in school administration is a slow growth.

REPORTS OF STANDING COMMITTEES

Commissioner Baldwin reported for the committee on time and place that it was unable to agree. Several ballots were taken and Saratoga Springs was chosen as the place of next meeting. The time will probably be September, 1897.

Commissioner Clair, from Committee on Legislation, made the following report : As a member of the committee on legislation I want to state that I did not expect to be the member to make this report. I fully expected that our chairman, Commissioner Francis, would be here and have the report all ready for the signatures of the other members. When I was appointed on the committee on legislation by the president I imagined that the duties of the committee were of the most important character and was fully prepared to do anything that I could to further the interest of this association in the matter of school legislation. I waited patiently for the chairman to call the committee together until somewhere about the middle of January. Not having heard from him I wrote him asking him if there were any duties this committee were obliged to perform during the session of the Legislature. He wrote me in return stating that he had intended to call the committee together and confer with the Department of Public Instruction at Albany. However, the time went along until about the first of February, when I heard from some friends of mine in Albany that there was some legislation contemplated relating to the office of school commissioner. I immediately wired Commissioner Francis to that effect a day or so after. I was surprised to see in the daily papers that a bill had been introduced by Senator Stranahan concerning the qualifications for the office of school commissioners. I proceeded to Albany and met Commissioners Francis and Van Marter. We saw Senator Stranahan, who introduced the bill, and Mr. Sanger, the chairman of the committee on legislation in the Assembly. We asked him to withhold any action on the measure until we had been given time to consider it. We had several interviews with the deputy superintendent relative to the bill, and finally we agreed between us to send out a circular to the commissioners and get their views upon the bill. We issued a circular, and I believe we had somewhere in the neighborhood of between ninety and one hundred responses. The agreement was that the committee should abide by what the commissioners thought of the bill. We want it understood that the committee would not oppose the special features of the bill.

I believe that out of the 95 communications received relating to the bill, there were 68 to 70 that were opposed to it. Whatever work was done by the committee was done in the interests of the association. We simply looked upon ourselves as your servants, and we acted in conformity to the wishes of a majority of this association.

There were no other matters of legislation that were brought before this committee, so our whole labor as your committee was in relation to the bill affecting the qualifications of commissioners.

Mr. Chairman, had I expected to be called upon to make this

report I would have made a written report. I do not want to stand any blame for not having done my duty in the committee. There were three members, and unfortunately I am the only one of the committee who presented himself, coming from the extreme end of the State to do so. I hope that what we have done will meet with your approval.

Mr. McElroy then read his report as treasurer.

Commissioner Nathan L. Miller read the following report for the committee on resolutions:

Resolved, That the thanks of this association are hereby tendered to Hon. Thomas V. Welch for his words of welcome.

To the State Superintendent of Public Instruction for his presence and for his address so helpful and inspiring.

To the Deputy Superintendent of Public Instruction for his counsel and help in making the meeting pleasant and profitable.

To Inspector James L. Hughes for his able and uplifting address.

To State Superintendent Carson, of Ohio, for his earnest and practical talk.

To Superintendent Benham for his efforts for our entertainment.

To the retiring officers for the able manner in which they have discharged all the duties of their respective offices.

To the railroad companies for their concessions for our benefit, and to all who have in any way contributed to the success and pleasure of this association.

Resolved, That this association recommend such amendments to the present school law as will permit any school district to make contracts with any adjacent districts for the instruction and transportation of the pupils of such districts as is now permitted to be made between union free school districts and adjacent districts.

Resolved, That we indorse the recommendation of the Superintendent of Public Instruction, that school commissioners use the authority now given by statute to the end that weak districts may be eliminated by consolidating them with the stronger; and

Resolved, That this association recommend the establishment by the State of one or more truant schools, and the re-enactment of the law providing for the purchasing of text-books for indigent pupils.

NATHAN L. MILLER.

T. R. KNEIL.

W. A. HOLCOMB.

All committee reports were adopted as read. The secretary was instructed to prepare a pamphlet proceedings of the meeting.

The president appointed Commissioners T. O. Young and D. D. T. Marshall a committee to conduct the newly elected president to the chair.

President Charles H. Howell was then presented to the association.

On motion of Commissioner Baldwin the following was adopted:

Resolved, That the president appoint a committee of two to confer with Prof. Bickmore in regard to extending visual instructions to commissioner districts. Adopted.

Committee on Visual Instruction appointed by President Howell.— Commissioner Kellogg, Chemung; Commissioner Baldwin, of Ulster, chairman of committee.

The president appointed the following committee on legislation: Commissioners James S. Cooley, of Queens; James R. Flagg, of Chautauqua; Walter S. Allerton, of Westchester. Adjourned.

LIST OF

Persons Attending the Annual Meeting of School Commissioners and Superintendents held at Niagara Falls, January 5, 7, 1897.

DEPARTMENT OF PUBLIC INSTRUCTION

Charles R. Skinner.....	Albany, N. Y.
D. E. Ainsworth.....	Albany, N. Y.
A. S. Downing.....	Albany, N. Y.
T. E. Finegan.....	Albany, N. Y.
A. R. Macdonald.....	Albany, N. Y.
L. O. Wiswell.....	Albany, N. Y.
O. W. Halliday.....	Albany, N. Y.
A. N. Wright.....	Waterville, N. Y.
A. Edson Hall.....	Saratoga, N. Y.
W. J. Barr.....	Batavia, N. Y.
W. S. Maxson.....	Adams Centre, N. Y.
Ellis D. Elwood.....	Ilion, N. Y.
Henry R. Sanford.....	Penn Yan, N. Y.
I. H. Stout.....	Geneva, N. Y.
A. C. McLachlan.....	Binghamton, N. Y.
Welland Hendrick.....	Cortland, N. Y.
Percy I. Bugbee.....	Oneonta, N. Y.
Gratia L. Rice.....	Buffalo, N. Y.

REGENTS' OFFICE

Chas. F. Wheelock.....	Albany, N. Y.
Chas. N. Cobb.....	Albany, N. Y.
Arthur G. Clement.....	Albany, N. Y.
Myron T. Scudder.....	Albany, N. Y.

NORMAL PRINCIPALS

James M. Cassety.....	Buffalo, N. Y.
John M. Milne.....	Genesee, N. Y.

SCHOOL COMMISSIONERS

Mrs. Mary L. Kniskern.....	Deposit, N. Y.
Martha Van Rensselaer.....	Randolph, N. Y.
Edwin S. Manchester.....	Scipioville, N. Y.
Grant E. Neil.....	Ashville, N. Y.

Winfield A. Holcomb.....	Fredonia, N. Y.
James R. Flagg.....	Frewsburg, N. Y.
Jess S. Kellogg.....	Millport, N. Y.
E. Everett Poole.....	Lincklaen Centre, N. Y.
Seth S. Allen.....	Peru, N. Y.
John W. Scott.....	West Copake, N. Y.
Nathan L. Miller.....	Cortland, N. Y.
James F. Ryther.....	West Seneca, N. Y.
Fred V. Lester.....	Westport, N. Y.
Willis E. Leek.....	Johnstown, N. Y.
Joel A. Loveridge.....	Batavia, N. Y.
D. D. T. Marshall.....	Redwood, N. Y.
James D. Sullivan.....	Livonia Station, N. Y.
Samuel L. Whitlock.....	Springwater, N. Y.
Carlos J. Coleman.....	Madison, N. Y.
A. Worth Palmer.....	Fairport, N. Y.
Chauncey Brainard.....	Spencerport, N. Y.
Albert D. Sheffield.....	Nelliston, N. Y.
Almon D. Van Cleve.....	Lockport, N. Y.
Adelaide L. Harris.....	Ransomville, N. Y.
Cora A. Davis.....	Whitesboro, N. Y.
Everett E. Edgerton.....	Clayville, N. Y.
Alfred F. Presley.....	Skaneateles, N. Y.
Newton F. Benedict.....	Fabius, N. Y.
Hiram C. Case.....	Allen's Hill, N. Y.
Charles Rivenburg.....	Newburgh, N. Y.
Wm. P. Kaufman.....	Otisville, N. Y.
Herbert R. Glidden.....	Holley, N. Y.
Thomas O. Young.....	New Haven, N. Y.
C. Edward Jones.....	Pulaski, N. Y.
James S. Cooley.....	Glen Cove, N. Y.
Edwin S. Comstock.....	Brainard, N. Y.
George G. Royce.....	Gouverneur, N. Y.
Walter E. Andrews.....	Pierrepont, N. Y.
Edwin F. McDonald.....	Norwood, N. Y.
John T. Rice.....	Corinth, N. Y.
Jabez L. Buck.....	Sugar Hill, N. Y.
Chas. H. Howell.....	Riverhead, N. Y.
Oscar Granger.....	Tioga Centre, N. Y.
Minor McDaniels.....	Enfield Centre, N. Y.
Grant H. Halsey.....	West Groton, N. Y.
Millard W. Baldwin.....	Port Ewen, N. Y.
Roxie G. Tuttle.....	Glens Falls, N. Y.
F. W. Allen.....	Bolton Landing, N. Y.
Myra L. Ingalsbe.....	Hartford, N. Y.
Samuel Cosad.....	Hartford, N. Y.

Rufus N. Backus.....	Palmyra, N. Y.
Walter S. Allerton.....	Mount Vernon, N. Y.
Merritt B. Hale.....	Warsaw, N. Y.
Silas L. Strivings.....	Gainesville, N. Y.
Llewellyn J. Barden.....	Gage, N. Y.

CITY AND VILLAGE SUPERINTENDENTS

R. H. Halsey.....	Binghamton, N. Y.
Chas. E. Nichols.....	Mount Vernon, N. Y.
Barney Whitney.....	Ogdensburg, N. Y.
Fox Holden.....	Olean, N. Y.
Geo. E. Bullis.....	Oswego, N. Y.
A. B. Blodgett.....	Syracuse, N. Y.
Geo. Griffith.....	Utica, N. Y.
John Kennedy.....	Batavia, N. Y.
Henry Delamain.....	College Point, N. Y.
F. E. Smith.....	Cortland, N. Y.
H. H. Snell.....	Hoosick Falls, N. Y.
E. W. Griffith.....	Norwich, N. Y.
Tho. R. Kneil.....	Saratoga Spa, N. Y.

SCHOOL BOOK AND SCHOOL FURNISHINGS REPRESENTATIVES

J. A. Greene.....	New York, N. Y.
W. D. Kerr.....	New York, N. Y.
Frank D. Beattys.....	New York, N. Y.
Geo. A. Plimpton.....	New York, N. Y.
Edwin S. Parker.....	Albany, N. Y.
J. S. Adams.....	Albany, N. Y.
Jesse A. Elsworth.....	Syracuse, N. Y.
A. D. Perkins.....	Syracuse, N. Y.
H. W. Childs.....	Syracuse, N. Y.
R. A. Kneeland.....	Rochester, N. Y.
J. S. Parker.....	Albany, N. Y.
John F. Rich.....	Batavia, N. Y.
Geo. A. Fenton.....	Broadalbin, N. Y.
E. L. Cummings.....	Springfield, Mass.
K. N. Washburn.....	Springfield, Mass.
Randolph McNutt.....	Buffalo, N. Y.
L. F. Stillman.....	Cortland, N. Y.

EX-COMMISSIONERS

F. R. Smith.....	Norwood, N. Y.
Chas. H. Wilson.....	Schroon Lake, N. Y.
Francis R. Clair.....	College Point, N. Y.

G. H. Thiry.....Long Island City.
F. W. McElroy.....Bliss, N. Y.
E. S. Harris (ex-superintendent).....Schuylerville, N. Y.
G. Fuller (Superintendent of Institute for Blind)....Batavia, N. Y.

There were in attendance:

Mrs. John W. Scott.
Mrs. Alfred F. Presley.
Mrs. Geo. G. Royce.
Mrs. L. J. Barden.

APPENDIX

EXHIBIT No. 5

REPRINT OF

COMMISSIONERS' COURSE OF STUDY

AND

TEACHERS' MANUAL.

STATE OF NEW YORK
Department of Public Instruction

COURSE OF STUDY
AND
TEACHERS' MANUAL

Revised Under the Supervision of
CHARLES R. SKINNER,
State Superintendent of Public Instruction.

THIRD EDITION

1896

TEACHERS' MANUAL

INTRODUCTION

As individuals and classes differ widely in character, ability and attainment, it is folly to set, in advance, exact study limits for all, or undertake to make every pupil fit any system. It does not follow, however, that the teacher should grope blindly through the term without any definite aim. Perhaps no work in the organization of the school so tries the judgment as the classification and promotion of pupils,—a fact well known to the experienced teacher. While the decision of these matters should ever be left largely to the discretion of the teacher, an outline which shall at once be suggestive of the topics which should usually be studied in the different stages and be the measure of a fair term's work for the average pupil can hardly fail to be of value in the smallest school; it has long been considered a necessity in schools having several departments. Its proper use tends to prevent the interruption and retrogression resulting from change of teachers, to provide for the prompt and continued promotion of deserving pupils, to encourage a broader and more extended culture, and to articulate more closely the elementary and the advanced schools.

Little more than a bare outline of the general course to be pursued is given herein, and this the teacher is expected to round out as circumstances require, adopting the methods which seem to insure the highest success.

This course is intended to be of such a character as to be easily accomplished by pupils of average ability, if regular in attendance. Irregular or indolent pupils should not be allowed to hinder the classes, and individual promotions should be made from time to time of the quick, faithful, and energetic pupils who find too little work prescribed.

The teacher should hourly show forth those virtues which characterize the perfect instructor, standing before the pupils a pure, reverent, broad-minded, even-tempered, well-bred model, remembering that there is constantly shed upon those around a silent influence for good or evil. He should acquaint himself with the best educational thought of the times. Professional literature, both classic and periodic, and educational meetings where there is personal contact and free exchange of thought, are sources of knowledge and inspiration which he cannot afford to ignore.

The great aim of the teacher should be not merely to give information, but to create the power to observe, to think, to do, rightly, without help, thus extending through a life-time the influence of a term.

Good order is absolutely essential to success, but it cannot be secured by scolding or threatening. The best disciplinarians are quiet and gentle, for power works easily. Attractive school rooms, pleasant grounds, neat and polite classmates, educated, trained and refined teachers who are devoted to the work, these

tend to draw and hold our young people and make them worthy citizens of our country.

DIRECTIONS AS TO GRADING, EXAMINATIONS, AND PROMOTIONS

On the first day of school a temporary classification should be made. Within a few days, after carefully considering the case of each pupil and learning his character, attainments, mental development, needs, and prospects, a term classification should be made, and each individual placed where he can accomplish most. From one to four times a year a readjustment should be made and worthy pupils should receive such promotion as their merits and the economy of the school will warrant, regardless of any set course of study.

Examinations will be held two days in each case, and will close on the Friday before Christmas, the last Friday in January and the second Friday in June. Each of these examinations will cover the work from the fourth year to the ninth, inclusive, except that no final or ninth year questions will be sent in December. The Commissioner will send the questions for the examinations.

The December and January examinations will cover the first term's work only of each year, the June examination the second term's work. The December examination is for those schools which close before the January examination. It is not expected that both will be given in any school.

The final or ninth year examination in each study will be held in January and June only, and at such convenient places as the School Commissioner may direct, and will be conducted by him or by a committee of two competent persons appointed by him. The committee will see that these examinations are fairly and honestly conducted, and that all the rules and regulations are strictly enforced, to the end that the diplomas awarded may receive proper recognition. The committee will examine and mark all answer papers and promptly forward to the School Commissioner for review and approval those which show the required standing.

Frequent reviews should be given for the drill.

Pupils are exempt in those studies in which they have passed at any previous examination held not more than two years before, and in all studies in which they have passed the Regents' examination.

Teachers and committees are expected to mark all papers, and, within two weeks, to send the standings to the Commissioner on blanks furnished for that purpose and bound in the school register, and to leave a copy of the report in the register.

All papers should be marked on the scale of 100, allowing the same number of credits to each question, unless otherwise indicated.

The full names, not pet names, of those in each grade should be written in the report by themselves.

If a pupil has done work in two or more grades, his name should be written but once, and that in the grade in which he has done the most work. His standing in other grades may be indicated by writing the number of the grade in the square with the standing. An X should be marked in the column provided after the names of those entitled to certificates or diplomas. For a term certificate or a diploma, a standing of 75 per cent is required in *reading, writing, arithmetic, geography, grammar* and *spelling*, and an average of 75 per cent in all other studies, no standing below 50 per cent being acceptable.

Every pupil in the school, including absentees, should be reported.

The syllabus of classes should be written in the report in every case. A statement over the teacher's signature, showing the standings gained, the grade and the date should be given to every pupil who takes a regular examination.

Certificates and diplomas will be sent by the Commissioner to the teachers to be countersigned and distributed. Holders of diplomas and other high grade certificates should be strongly encouraged to take an academic course.

The examinations are to be used as a basis for promotions, but not as the sole test. The teacher is to use his judgment as to whether it is wise to promote a pupil or a class. It is generally best to keep the class together until the end of the year; then if any show marked deficiency in the work of that year they should be required to review it the next year. Pupils may be allowed to go on with the class, even though they have failed to pass the examinations, if there is a fair prospect of their making up the deficiency, and they have ability to do the more advanced work.

PROGRAM FOR A SCHOOL HAVING BUT ONE TEACHER

TIME	FIRST YEAR	THIRD YEAR	SIXTH YEAR	EIGHTH YEAR
9:00- 9:10	Opening Exer.	Opening Exer.	Opening Exer.	Opening Exer.
9:10- 9:30	Reading	Reading	Reading	Reading
9:30- 9:50	Copying	Reading	Reading	Reading
9:50-10:10	Employment	Reading	Arithmetic	Arithmetic
10:10-10:25	Dismissed	Arithmetic	Reading	Arithmetic
10:25-10:35	<i>Recess</i>	<i>Recess</i>	<i>Recess</i>	<i>Recess</i>
10:35-10:45	Number	Arithmetic	Arithmetic	Arithmetic
10:45-11:05	Drawing	Arithmetic	Arithmetic	Arithmetic
11:05-11:25	Employment	Arithmetic	Arithmetic	History
11:25-11:45	Dismissed	Read. and Spell.	Arithmetic	History
11:45-12:00	.....	Language	Geography	History
12:00- 1:00	<i>Noon</i>	<i>Noon</i>	<i>Noon</i>	<i>Noon</i>
1:00- 1:05	Sing. or Oth. Ex	Sing. or Oth. Ex	Sing. or Oth. Ex	Sing. or other Ex.
1:05- 1:20	Reading	Read. and Spell.	Geography	Grammar
1:20- 1:30	Copying	Read. & Spell.	Geography	Grammar
1:30- 1:45	Drawing*	Drawing*	Drawing*	Drawing*
1:45- 2:00	Physiology*	Physiology*	Geography	Grammar
2:00- 2:20	Dismissed	Miscellaneous	Phys. and Lang	Grammar
2:20- 2:35	.....	Writing	Writing	Physiology
2:35- 2:45	<i>Recess</i>	<i>Recess</i>	<i>Recess</i>	<i>Recess</i>
2:45- 2:55	Gen'l Lessons	Gen'l Lessons	Gen'l Lessons	Gen'l Lessons.
2:55- 3:00	Miscellaneous	Geography	Phys. or Lang	Civil Gov.
3:00- 3:15	Tracing	Geography	Phys. or Lang*	Phys. or Civil Gov.*
3:15- 3:30	Dismissed	Geography	Spelling	Civil Gov.
3:30- 3:45	.....	Dismissed	Spelling	Civil Gov.
3:45- 4:00	.....	.....	Spelling	Special Work

The program should be modeled as nearly as may be after the above form, regard being had to present conditions, and should be fastened to the wall of the room. Class exercises, which are shown in bold-faced type, may be indicated by underscoring the words. A star after the subject indicates that recitations in this branch may be alternated with those in some other. Daily recitations should be had in all studies not so starred.

The following classes are all that should be found in the average school of one department. The number should be reduced if possible.

Reading.—Blackboard work and first, second or third reader, two recitations daily in each. Fourth and fifth readers, or supplementary reading, one recitation daily in each.

Writing.—One general daily exercise.

Spelling.—Two classes ; one recitation daily. In primary grades, teach spelling in connection with reading.

Language.—Two classes ; three recitations a week—more if possible.

Arithmetic.—Four classes ; daily recitations.

Geography.—Two classes ; daily recitations.

Drawing.—Two or three classes ; two recitations a week.

Physiology.—Two classes ; two or three recitations a week.

History.—One class ; daily recitations.

Civil Government.—One class ; daily recitations.

General Lessons.—One general daily exercise.

COURSE OF STUDY

FIRST YEAR

Reading.—Blackboard work. . First reader begun.

Writing.—Much written work on tablet, slate and blackboard.

Spelling.—All words introduced in reading and other lessons.

Language.—Correct oral expression. Short sentences copied in script.

Arithmetic.—First term : All combinations from 1 to 5, inclusive. Second term : Combinations to 10. Problems involving addition, subtraction, multiplication and division.

Geography.—Size, — relative, form, color, position, distance, direction ; some general ideas regarding climate, products, people and occupations.

Physiology and Hygiene.—Lessons from text-book.

Drawing.—Color, form, botanical drawing and arrangement, measure, illustrative sketching.

General Lessons.—Good morals and manners. Care of the person. Simplest elements of vocal music. Nature study. Literature.

SECOND YEAR

FIRST TERM

Reading.—First Reader completed.

Writing.—Former lessons continued.

Spelling.—Oral and written spelling of all words introduced.

Language.—Correct oral and written forms taught in connection with other lessons.

Arithmetic.—Combinations to 15. Reading and writing of numbers to 100. Fractions—halves, thirds and fourths.

Geography.—Size, — absolute, form, color, position, distance, direction; some general ideas regarding climate, products, people and occupations; drawing to a scale the desk, school-room and yard.

Physiology and Hygiene.—Lessons from text-book.

Drawing.—Color, form, botanical drawing and arrangement, measure, location, illustrative sketching.

General Lessons.—Inculcating good habits. Elements of vocal music. Nature study. Literature. Items of useful knowledge.

SECOND TERM

Reading.—Second Reader begun.

Writing.—Former lessons continued.

Spelling.—Former lessons continued.

Language.—Former lessons continued.

Arithmetic.—Combinations to 25. Reading and writing of numbers to 1000. Addition and subtraction tables completed. Fractions to and including tenths, numerator 1. Original concrete work.

Geography.—Former lessons continued.

Physiology and Hygiene.—Lessons from text-book.

Drawing.—Former lessons continued.

General Lessons.—Former lessons continued.

THIRD YEAR

FIRST TERM

Reading.—Second Reader completed. Supplementary reading.

Writing.—Copy Book No. 1.

Spelling.—All words in various lessons.

Language.—Exercises in reproduction, narration and description.

Arithmetic.—Multiplication and division tables. Fractions to tenths, using 1, 2, and 3 as numerators. Easy problems in mental arithmetic.

Geography.—Form and color; general ideas regarding climate, products, people, occupations, land and water forms, town and county, city and country life.

Physiology and Hygiene.—Lessons from text-book.

Drawing.—Color, form, botanical drawing and arrangement, measure, illustrative sketching.

General Lessons.—Reading very easy music. Nature study. Literature.

SECOND TERM

Reading.—Supplementary reading of Second Reader grade.

Writing.—Copy Book No. 1.

Spelling.—First term lessons continued.

Language.—Exercises in reproduction, narration and description.

Arithmetic.—Addition, subtraction, and multiplication. **Fractions** (see notes). Concrete work, with analysis. Mental arithmetic.

Geography.—Former lessons continued.

Physiology and Hygiene.—Lessons from text-book.

Drawing.—Former lessons continued.

General Lessons.—Former lessons continued.

FOURTH YEAR

FIRST TERM

Reading.—Third Reader begun and much supplementary reading.

Writing.—Copy Book No. 2.

Spelling.—New words in reading and other lessons. Spelling book.

Language.—See previous notes. Reproduction, narration and description. Special elementary lessons on the sentence, subject and predicate, statement and question, the use of capitals, ordinary marks of punctuation, abbreviations, contractions and homonyms.

Arithmetic.—Reading and writing numbers of four periods. Roman notation to 100. Division. United States money. Mental arithmetic. Third year's work in fractions continued.

Geography.—Form and color; some general ideas regarding climate, products, people and occupations; globe lessons.

Physiology and Hygiene.—Lessons from text-book.

Drawing.—*Decorative Drawing*: Color, botanical drawing. *Pictorial drawing*.

General Lessons.—Biographical sketches of noted persons. Vocal music. Nature study. Literature.

SECOND TERM

Reading.—Third Reader completed and much supplementary reading.

Writing.—Copy Book No. 2.

Spelling.—First term lessons continued.

Language.—A continuation of first term's work. Elementary lessons on imperative and exclamatory sentences, modifiers, and form in letter writing.

Arithmetic.—Fractions (see Manual). Problems involving all principles previously taught. Mental arithmetic. Roman notation to 1000. Problems in linear measure.

Geography.—First term lessons continued. Lessons from wall maps, and review of town and county.

Physiology and Hygiene.—Lessons from text-book.

Drawing.—*Geometric drawing*: Measure, tools, geometric terms, problems, working drawing, development. Lessons of first term continued.

General Lessons.—Former lessons continued.

FIFTH YEAR

FIRST TERM

Reading.—Fourth Reader begun. Much supplementary reading.

Writing.—Copy Book No. 3.

Spelling.—Words from various lessons and from spelling books.

Language.—Former lessons continued. Reproduction, narration and description. Elementary lessons on the noun and its classification as proper and common; quotations; the distinction between such words as *set* and *set*, *rise* and *raise*, *teach* and *learn*; letter forms, word analysis.

Arithmetic.—Factors, multiples, and divisors. G. C. D. and L. C. M. Reduction, addition, and subtraction of fractions. Simple problems in avoirdupois weight. Easy bills.

Geography.—Elementary lessons on North America and South America.

Physiology and Hygiene.—Elementary lessons on the framework and the covering of the body, and the muscles.

Drawing.—*Decorative drawing*: Color, botanical drawing. *Pictorial drawing*.

General Lessons.—Elementary science lessons. Literature. Vocal music. Rhetorical training.

SECOND TERM

Reading.—Fourth Reader continued and supplementary reading. Selections from classic literature and stories from American history, read in school and at home.

Writing.—Copy Book No. 3.

Spelling.—As in preceding term.

Language.—Former lessons continued. Singular and plural forms, possessives, adjectives. Review.

Arithmetic.—Common fractions completed. Simple problems in liquid and dry measure. Problems involving all principles previously taught.

Geography.—Europe, Asia, Africa and Australia. A thorough review and completion of elementary geography.

Physiology and Hygiene.—Elementary lessons on foods and drinks and digestion.

Drawing.—*Geometric drawing*: Measure, tools, geometric terms, problems, working drawing, development. Lessons of first term continued.

General Lessons.—Former lessons continued.

SIXTH YEAR

FIRST TERM

Reading.—Fourth Reader completed. Supplementary reading.

Writing.—Copy Book No. 4.

Spelling.—Spelling book and important words in various lessons.

Language.—Former lessons continued. Reproduction, narration and description. Elementary lessons on the comparison of adjectives; clauses; pronouns; the distinction between such words as *funny*, *strange* and *odd*, *fewer* and *less*. Word analysis.

Arithmetic.—Review of common fractions. Decimals. Problems involving all previous work. Mental arithmetic.

Geography.—Mathematical geography. Divisions of North America, the United States in particular.

Physiology and Hygiene.—Elementary lessons on blood and breathing.

Drawing.—*Decorative drawing*: Color, botanical drawing. *Pictorial drawing*.

General Lessons.—Vocal music. Science lessons. Literature. Rhetorical training. Calisthenic drill.

SECOND TERM

Reading.—Choice selections from standard authors.

Writing.—Copy Book No. 4.

Spelling.—From readers, spellers, and other text-books, as in preceding terms.

Language.—Former lessons continued. Elementary lessons on verbs, principal parts, tense, person, number, compound predicate, adverbs, phrases, prepositions, conjunctions, interjections. Review.

Arithmetic.—Compound numbers — tables and reduction. Problems involving all previous work.

Geography.—New York State: boundaries and natural features; counties; principal railroad systems; cities and important towns; minerals, products, manufactures, government, and education. Special study of the county in which the school is located.

Physiology and Hygiene.—Elementary lessons on the nerves and the five senses.

Drawing.—*Geometric drawing*: Measure, tools, geometric terms, problems, working drawing, development. Lessons of first term continued.

General Lessons.—Former lessons continued.

SEVENTH YEAR

FIRST TERM

Reading.—Fifth Reader, or choice selections from standard authors.

Writing.—Copy Book No. 5.

Spelling.—Previous work continued.

Grammar.—Reproduction, narration and description. The sentence, kinds, analysis of simple sentences; nouns, adjectives, verbs, adverbs, and their classifications; comparison; abbreviations, contractions, capitals and punctuation; the paragraph; quotations; word analysis.

Arithmetic.—Compound numbers completed. Problems involving all previous work.

Geography.—Review. South America, Europe and Asia.

Physiology and Hygiene.—Review. The skeleton, muscles and skin.

Drawing.—*Decorative drawing*: Color, botanical drawing. *Geometric drawing*: Measure, tools, geometric terms, problems. *Pictorial drawing*.

General Lessons.—A continuation of previous lessons. (See sixth year, first term.) Current events.

SECOND TERM

Reading.—Classic literature.

Writing.—Copy Book No. 6.

Spelling.—Continuation of previous work.

Grammar.—Former lessons continued. Clause and phrase; complements; prepositions, conjunctions and interjections; person, number, gender and case; analysis and parsing; letters of friendship, business and recommendation; punctuation of words in series, of words of address, of words omitted; the hyphen; synonyms, appositives; formal notes, telegrams, advertisements; rambling sentences, natural order of words. Word analysis.

Arithmetic.—Percentage, insurance, taxes, commission, profit and loss. Problems involving all previous work.

Geography.—Africa, Oceanica, standard time, and general review.

Physiology and Hygiene.—Digestion.

Drawing.—Lessons of first term continued. *Geometric drawing*: Working drawing, development.

General Lessons.—A continuation of previous lessons.

EIGHTH YEAR

FIRST TERM

Reading.—Classic literature. One or two recitations a week.

Grammar.—Former lessons reviewed and continued. Reproduction, narration and description. Complex and compound sentences; the interrogative sentence; analysis and parsing; verbs,—principal parts, regular and irregular, redundant and defective; voice, mode, tense, person and number; declension; punctuation; parenthetical expressions; synonyms; literary style; ambiguity; newspaper articles, bills, essays; word analysis.

Arithmetic.—Review of last term's work. Simple interest. Partial payments—United States rule only. Problems.

Physiology and Hygiene.—Review; circulation and respiration, including voice.

Drawing.—*Decorative drawing*: Color, botanical drawing. *Geometric drawing*: Measure, tools, geometric terms, problems. *Pictorial drawing*.

History.—Discoveries and explorations; Colonial period to 1788.

General Lessons.—(See sixth year, first term.) Current events. Making of simple apparatus and other useful articles.

SECOND TERM

Reading.—Same as preceding term.

Grammar.—Former lessons continued. Position of modifiers; conjugation; infinitives and participles; emphatic, interrogative and negative forms; progressive and passive forms; the dash; direct and indirect quotations; receipts, checks, promissory notes, orders and drafts.

Arithmetic.—Review of percentage. Longitude and time. True and bank discount. Stocks. Metric system.

Physiology and Hygiene.—Nervous system and special senses. General review.

Drawing.—Lessons of first term continued. *Geometric drawing*: Working drawing, isometric projection, development.

History.—First term's work briefly reviewed, and continued to the close of the War of 1812.

General Lessons.—Former lessons continued.

NINTH YEAR

FIRST TERM

Grammar.—Former lessons reviewed and continued. Reproduction, narration, description and composition. Simple, complex and compound sentences; analysis and parsing; semicolon and colon; specific and general terms; brevity, force, clearness, simplicity; figures of speech—simile, metaphor; climax; peri-

odic, loose and balanced sentences; secretary's records, constitution and by-laws, amendments, notices, reports of committees, preamble and resolutions, book reviews, credentials, petitions, resolutions, remonstrances, announcements; synonyms; word analysis.

Arithmetic. — Bills, ratio, proportion, partnership, square root, domestic exchange, mensuration.

Drawing. — *Geometric drawing*: Measure, tools, geometric terms, problems, development, working drawing, isometric projection. *Decorative drawing*: Color, botanical drawing. *Pictorial drawing*.

History. — American history completed. History of the State of New York.

Civil Government. — Some elementary work. Special attention given to the Constitution of the United States and of New York.

Geography. — General review, preparatory to final examinations.

General Lessons. — (See eighth year, first term.)

SECOND TERM

During this term, the pupils should pursue those studies of the course in which they have not yet passed the final examinations; and if they are capable of doing more work than this, they should take up one or more of the following subjects: Algebra, Physical Geography, Book-keeping.

GENERAL SUGGESTIONS

FIRST YEAR

READING

The object of reading is to get thought from written or printed characters, and to give easy and natural oral expression to the same. Any method of primary instruction which secures this result from the beginning is good.

Before the first lesson, prepare a chart like the following, which should be kept in view of the pupils:

<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i>

<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>&c.</i>
<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>&c.</i>

Children should be encouraged by teaching them to read one or two sentences at the first exercise.

Upon entering school, children have a vocabulary of several hundred words, the proper use of which they know. The teacher's work is to teach the children to know the same words in their written or printed forms and to reproduce these forms.

Choose only such words as the children are accustomed to use.

In order that the sentences may be natural, the words should not be limited to any particular elementary sounds of the letters.

Beginners will more easily learn words which are quite dissimilar in appearance.

As child language contains some words of two syllables, so should the primary reading lessons.

With other words, teach those of the first few pages of the First Reader to be used. This will greatly aid in the transition from the blackboard to reading books.

Teach *the* and *a* with some other words, thus securing the proper pronunciation.

Use script letters in all blackboard work, and use only one form of each capital and small letter.

For the first lesson, teach miscellaneously on the blackboard the words of the proposed sentence, and no others, at first paying no attention to the letters, writing each word several times, giving sufficient drill to enable each child instantly to recognize each word at sight. Cover the word and ask the children to think how it looks, thus taxing the memory and making a lasting impression upon the mind. Write the complete sentence properly, *i. e.*, commencing with a capital and closing with the appropriate punctuation mark. Review the words, but not in regular order. Ask all the children to read a sentence silently. If the words have been thoroughly learned, the pupils will be able to read it aloud, giving proper expression to the thought.

Teach, as before, one more word and substitute it in previous sentence.

So continue to introduce other words and make every possible combination with all words taught, forming as many words as possible. At every exercise thus review, in new and longer sentences; the words previously taught.

Erase all work daily to prevent local memorizing.

The three necessary steps in reading are —

- a.* The prompt recognition of the written or printed words.
- b.* Silent reading.
- c.* Oral reading.

The teacher should not read for the pupils the sentence which they are expected to read. To show what reading is, they may hear other sentences read.

A drawling or hesitating manner should be stopped at once. By proper teaching, it may be prevented.

Let only one or two read each sentence, as it will otherwise soon be repeated only from memory.

Keep a list of all words introduced, in order that they may be used in review sentences until they cannot be forgotten. Keep no record of the sentences, but rather let the words be differently combined every time.

The number of different sentences which may be made out of the same material may be increased by using the interrogative form.

Neither teacher nor pupil should point to words in regular order while reading orally.

Spelling out words while reading orally should not be permitted.

A pupil should not attempt to read a sentence orally until he has the thought in mind.

The elementary sounds of our language and the proper manner of representing them by letters and diacritical marks should be taught very early for the following purposes

- a.* To give ability to pronounce new words without help.
- b.* To improve articulation.
- c.* To correct defective speech.

Frequently write questions on the blackboard to be read silently by the pupils, but to be answered by them orally, sometimes in writing.

It is usually best not to use readers until there have been taught from one

hundred to one hundred fifty words, with a very large number of sentences made from them. In ungraded schools of a single department, books must frequently be taken sooner.

In making the transition to reading books, teach in the same manner as from the blackboard, a sentence from the first page of the reader to be used; then read it from the book; then another, and so continue through several pages, when the pupil will read from the book with ease. Before asking a pupil to read a sentence or a paragraph aloud, be sure that he can pronounce every word in it correctly at sight. Let every new word be properly used in a sentence, either written or given orally, to show its meaning. The spelling of all new words should also be learned.

Let every sentence or paragraph be first read silently. Do not allow pupils to interrupt the one who is reading.

Still continue blackboard exercises, forming sentences from the new words of the reader, combined with those previously learned.

The teacher may sometimes, with profit, retain the readers, and let pupils use them only in class.

WRITING

Pupils should copy, on slates, tablets, or blackboards, the words and sentences taught. Encourage every worthy effort, no matter how poor the work. Make large and accurate copies. Pupils should have long pencils, and be taught to hold them properly from the start. Teach critically *i*, *u*, *w*, *n*, *m*, and all the figures. Devote a number of minutes each day to the forearm or movement exercises. Tracing will be helpful in primary grades.

SPELLING

Practice should be given in the phonic spelling of easy words, and in the copying, in script, of selected words and sentences. Incorrect forms should not be seen if possible to prevent it. Difficult words should be reviewed daily.

LANGUAGE

The main objects of language study in the primary grades are the quick recognition of printed and written forms, and facility in the correct oral and written expression of thought. By the first, the child learns to read, and thus becomes master of an important means of gaining ideas; by acquiring the second, he learns the most effective manner of communicating his ideas. The extension of the child's vocabulary, by which he learns the correct symbols for new ideas, is a third object which, though it should not be emphasized the first year, later grows in importance. What a child needs at first is much practice and little philosophy. Every lesson will furnish opportunity for speaking or writing; special language exercises in addition to those in reading, writing, spelling, science and literature will not, therefore, at first be necessary. The regular science and literature lessons will furnish particularly good material for language exercises; and as the language element is of primary importance, such lessons may properly be classed under the latter head.

While the language of the pupils on every occasion should be made the subject of criticism, the skillful teacher will not disconcert the little speaker by untimely or tactless corrections. Honest endeavor should receive prompt recognition. Only the best written work should be shown.

ARITHMETIC

FIRST TERM.—By the use of blocks, balls, sticks, pebbles, etc., teach the numbers 1, 2, 3, 4 and 5. Have the pupils handle the objects. Make all the combinations possible to 5, involving addition, subtraction, multiplication and division. For instance, with the number 4, teach 4, four, IV.

3 and 1 are 4; 2 and 2 are 4.

1 and 3 are 4; 1, 1, 1, 1 are 4.

4 less 1 are 3; 4 less 3 are 1.

4 less 2 are 2; 4 less 0 are 4.

Four 1's are 4; two 2's are 4.

There are four 1's in 4.

There is one 4 in 4.

There are two 2's in four.

Give many applications, advance slowly, be thorough, require promptness, and give much drill.

SECOND TERM.—Teach numbers to 10, as in first term, both with and without objects. Teach all combinations and separations of each number. Give eight examples, as —

$$\begin{array}{r} 5 \\ 4 \\ - \end{array} \quad \begin{array}{r} 5 \\ 2 \\ - \end{array} \quad \begin{array}{r} 8 \\ 4 \\ - \end{array} \quad \begin{array}{r} 1 \\ 8 \\ - \end{array} \quad \begin{array}{r} 8 \\ 2 \\ - \end{array} \quad \begin{array}{r} 5 \\ 2 \\ - \end{array} \quad \begin{array}{r} 4 \\ 1 \\ - \end{array} \quad \begin{array}{r} 7 \\ 8 \\ - \end{array} \quad \begin{array}{r} 9 \\ 5 \\ - \end{array}$$

etc., in addition, subtraction, multiplication and division; also, examples in applied numbers, using objects and money. Drill in making figures and teach the signs.

GEOGRAPHY

NOTES FOR FIRST FOUR YEARS.—As far as possible these lessons should be based upon direct observation.

• Relative size is expressed by such words as *large* and *small*, *long* and *short*, *wide* and *narrow*, *thick* and *thin*, *deep* and *shallow*. If not already thoroughly understood, the proper use of these terms, including their comparatives and superlatives, should be taught, usually in connection with language and reading lessons, the standard of measurement being chosen by teacher or pupil.

A course in form and color is outlined under drawing. By practice the correct use of such terms as *right*, *left*, *on*, *over*, *upon*, *across*, *near* and *under* may be taught. Observation of the rising and setting sun should precede lessons on the cardinal points.

• Climate should be studied by taking note of the seasons as they pass. Every month of the year has certain distinguishing characteristics, shown by earth, air and sky, by plants and the habits of animals. Closely allied to this topic is Nature Study, and the attention of the teacher is directed to the notes thereon. This and the following topics are the essence of geography; they may be profitably supplemented by introducing appropriate poetic and other literary selections, and by telling stories about the climate, plants, animals, people, customs and occupations in other lands.

Stories about Indians, Esquimaux and people in distant countries, the reading of such books as "The Seven Little Sisters" and lessons about historic personages and events tend to create an interest in the places with which they are associated, and form an excellent foundation for future studies in history and literature.

Attention should be called to the growing and gathering of the products of the farm and the garden, to the sale of the surplus, and to the purchase of other things with the proceeds. The story of these transactions is a key to the history of the commerce of the world, which has had such a powerful influence upon the physical, intellectual and moral life of mankind. Following should come lessons on

the products of distant states and foreign countries. These lessons may cover such articles as sugar, spices, salt, oranges, bananas, tea, coffee, cloth, buttons and nails.

The lessons on people and products lead to those on occupations. General ideas of the division of labor and the methods of the workman should be given. Suggestions may be found on every hand; even a piece of cotton cloth suggests the planter, the manufacturer and the merchant. If nothing is gained but some appreciation of the dignity of labor and the respect due the skilled workman, the time spent on these lessons will not have been lost.

In some cases these lessons may be given to the entire school with advantage; in the first and second years they may be classed under General Lessons.

PHYSIOLOGY AND HYGIENE

The law requires that this subject, including the nature of alcoholic drinks and other narcotics and their effects on the human system, shall be taught orally to pupils of the first, second and third grades, that the teacher shall use text-books adapted for such instruction as a guide and standard, and that the number of lessons given to the pupils in these grades each year shall be not less than two a week for ten weeks, or the equivalent thereof.

Uncleanliness should not be tolerated. The nails, the hair, etc., should receive careful attention.

DRAWING

NOTE.—In these notes on drawing, the teacher is frequently referred to lessons and pages in the pamphlet "Drawing for Use in Teachers' Institutes and Training Classes," a copy of which is furnished with this Manual.

Color.—The six positive spectrum colors illustrated by means of a prism; color in nature. Collecting and matching colored objects; mounting them on cardboard in the order of the colors in the spectrum. Apply in the study of faces of objects and in arrangement to illustrate contrasted harmony. Correlate with nature study, language work, etc. This topic and *botanical drawing* should be presented in the early fall and spring. (See Lesson I.)

Form.—Three geometric type solids, sphere, cylinder and cube; bisections of each; objects based upon the parts obtained by bisection. Name the geometric plane figures found in the faces; study direction of edges; study relation of edges. Trace outlines of faces and cut from colored paper to make simple objects of two dimensions. Freehand drawing to represent objects of two dimensions.

Botanical Drawing.—The teacher to draw a few simple leaves and flowers; study the growth of these. Classify leaves and flowers according to the forms learned. Teach *repetition* as a principle of growth. Observe the opposite and alternate arrangement of leaves on the stem. Teach *alternation of position* as a principle of growth. Apply these principles in stick laying, and in drawing.

Measure.—One to four inches inclusive, from the ruler. Teach the use of the ruler in drawing geometric faces.

Location.—Teach terms of location.

Illustrative Sketching.—For free expression; for terms of location; for application of the geometric figures, angles and lines; with stories, language work and nature studies.

GENERAL LESSONS

Under this heading are indicated a few additional lines of study, which ought not to be neglected by teachers of primary, intermediate or grammar grades. A

large proportion of the pupils in our public schools cease to attend at an early age. It is therefore most desirable that a course of study for the young should be rounded out, and that some general preparation for and training in right living, intelligent thinking and patriotic citizenship be given early.

General Lessons should be assigned a place on the regular program, and each sub-topic should receive its due amount of attention.

The teacher will find the time needed for any special exercise by omitting a regular recitation, by requiring a written recitation to be prepared in advance, by alternating recitations, by condensing and shortening the work of one or more recitations, etc.

VOCAL MUSIC.— By all proper means, cultivate the æsthetic sense of the pupils. It is a pity to live without some appreciation of the beautiful in nature and in art. In our best public schools this has been increased by the study of drawing and vocal music. Happy and fortunate are those pupils whose teacher has a sweet voice and a taste for music.

Several different firms publish complete courses in vocal music, and each teacher will do well to secure a set of the books in use in his vicinity, including a manual. These aids may be supplemented by special instruction. Work for only four grades is laid out herein, but this has been spread over the entire course. Large, well-graded schools will be able to do much more. One lesson a week, with frequent drill, will be sufficient. In schools where the pupils have had no instruction in music, all should commence at the beginning. If you have no instrument, use a pitch-pipe (double, in C and G is best) to get the pitch. Take the pitch frequently while practicing. Insist on the pupils singing in soft, clear, melodious tones. Do not allow harsh or shrill tones.

Work for First and Second Years.—Rote songs. Teach the scale by rote, ascending and descending, in the key of D. Teach —

- a. Scale names, i. e., 1, 2, 3, 4, etc.
- b. Pitch names, i. e., c, d, e, etc.
- c. Syllables, i. e., do, re, etc.

Place them on a scale ladder:

8	c	do
7	b	si
6	a	la
5	g	sol
4	f	fa
3	e	mi
2	d	re
1	c	do

Use syllables, principally, in practicing.

Give simple exercises pitched in the key of G, using only the first six sounds of the scale, for young children's voices. If more than six sounds of the scale are used, pitch it in D.

Teach quarter and half notes and rests, measures, bars, staff, G clef, marks of expression, and the slur. Beat two-part time and three-part time. Give daily reviews.

LITERATURE — See appendix.

NATURE STUDY.— The principal objects of nature study, in primary grades, are to arouse an interest in created things, to develop a higher appreciation of their beauty, their adaptation to their surroundings, and their value to man, and to quicken the power of observation. For these purposes, living or active forms are best, and the suggestions here given will therefore cover plants and animals only. As in nearly all primary work, these lessons as far as possible, should be based on observation. While the material to be used must depend largely upon the environment of the school and the season of the year, the spirit of the instruction may be the same in all cases.

For example, a cat may be shown to the class, and at successive lessons the pupils may be led to observe the following points:

Her hair is her outer coat. It is very fine and is therefore called fur. Fur is warmer than coarse hair. If the hairs come out freely, she is changing her coat.

Her footsteps cannot be heard because she has little cushions on her feet. Cats are often obliged to catch mice or go hungry; and these cushions enable them to approach the mice quietly. Her claws are curved and are very sharp. They are really her finger nails, and are used by her, in the absence of long fingers, to hold her prey and to climb. Walking on them would dull them, and, besides, would make a noise, so she keeps them drawn back into sheaths.

Her teeth are pointed and sharp, and are best adapted to eating meat, which cats like very much.

The pupils of her eyes can be greatly enlarged; and as her eyes are sorts of windows out of which she looks, such an enlargement is only a way to raise the curtains, which she needs to do when it grows dark. In this way cats can see very well in the night. Furthermore, the pupil of her eye has its greatest length up and down. Perhaps this is to enable her with greater ease to look up into trees where tender young birds and their mothers may be found.

The tiger, whose picture should be shown with those of other foreign animals, is a kind of large, fierce cat which lives a long way off.

Pictures of the cat may be drawn, and appropriate stories or poems may be read or recited. The old story of Dick Whittington's Cat is good, and it may be found in Scudder's Fables and Folk Stories.

Similar lessons, in proper season may be given on familiar and typical animals, such as the robin, the squirrel, the woodchuck, the mole. Pictures of unfamiliar animals should be introduced.

At the beginning of the school year one or two plants should be studied as wholes, and the uses of the roots, stems, leaves, flowers, and seeds should be learned. The manner of growth from the seed may be observed by planting a bean in damp cotton or blotting paper, and the swelling of buds, by keeping a twig in water.

SECOND YEAR**FIRST TERM****READING**

Continue the teaching of the elementary sounds and the drills in correct pronunciation. Teach the pronunciation, spelling and correct use of the new words of each lesson, then let each sentence or paragraph be read by the pupils silently before the giving of oral expression to the thought is attempted.

Pupils should frequently read a paragraph silently, and then close the book and express the thought in their own words.

For occasional exercises, select a very interesting article, which the pupils have not read, and, to cultivate attention, use only one copy.

From your own reading, make clippings of appropriate articles for your various classes to read and copy. Paste them on cards and gradually accumulate a supply for each class. If articles cannot be clipped out, copy them on cards. If necessary, rewrite incidents for primary classes in order to clothe them in appropriate language.

WRITING

Drill on the remaining small letters. Require all exercises in writing to be carefully executed. Continue the arm movement.

ARITHMETIC

Develop numbers to 15 with objects, introducing written exercises. Drill pupils in reading combinations and separations at sight, either from the board or from cards. Practice rapid addition of figures in columns to 30 and adding by 2, 8, etc., to 30, and have pupils read and write numbers to 100. Teach the use of tens in building up numbers.

Tie ten sticks into a bunch to represent a ten. This ten, with one stick, will represent eleven. So continue to illustrate succeeding numbers. Give many concrete problems. Teach fractions $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, and fractional parts in which the result will be an exact whole number.

GEOGRAPHY

See notes under first year.

In measurements of absolute size, the standards are fixed by law. Pupils should gain facility in measuring by actual practice.

Form study is of the highest value in assisting pupils to gain correct conceptions of the earth; and handling a sphere is, in the beginning, infinitely more helpful than poring over the dots and lines on a map. Mere representations must not be magnified into a final object; we must constantly look through and beyond these to the earth itself. Preparatory to map drawing, the pupils should be taught to draw figures having exact dimensions and note the measurements; to draw figures in which a long unit is represented by a short one; for example, a foot, by an inch.

SPELLING

All words of the first reader vocabulary should be spelled both orally and in writing. Give frequent exercises in phonic spelling, silent letters being designated. Review difficult words daily.

LANGUAGE

See previous notes. Sentences from text book and sentences dictated by teacher copied in script, regard being had to capitals, punctuation, and correct word forms. Learning to talk smoothly and connectedly. (See notes on Reading and General Lessons.)

PHYSIOLOGY AND HYGIENE

(See first year note.)

DRAWING

Color.—Review the six positive spectrum colors. Exhibit a tint and a shade of each of the six positives; distinguish between a tint and a hue. Teach hue; produce twelve hues by use of the color top or wheel; match colors and collect objects. Apply and correlate as in first year work. (See Lessons I and II).

Form. — Review the type forms of the first year. Teach quadrisections of the cube: square prism, triangular prism, square plinth. Parts, applications, and drawing as in the first year.

Botanical Drawing. — Draw simple leaves and flowers and classify according to the geometric figures learned. Make simple classifications of leaves according to the angle at the base and at the apex. Review principles of growth in first year work, and teach *linear repetition* and *radial repetition*; *alternation of size* and *alternation of form*. Apply as in first year work.

Measure. — One inch to twelve inches inclusive, from the ruler; also the half inch. Teach the foot as a unit of distance. Teach length, width, and height, and the proportion of one-half to one. Rule light and dark lines according to fixed measurements. Give simple idea of scale work. (See note on geography.)

Location.— Review first year work.

Illustrative Sketching. — See first year. Also blackboard work and picture studies. Combinations of the geometric plane figures learned; e. g., square and triangle, oblong and circle. Original illustrations of single words or sentences calling attention to drawing as a language.

GENERAL LESSONS

(See notes under first year.)

Teach the days of the week, the months, and seasons; right, left; time from a clock, etc.

By training, the teacher may cause the pupils to repeat an act until it is performed easily and half-unconsciously, thus forming a habit for their guidance when there is no watchful eye over them.

Among the good habits which should be formed are truthfulness, prompt obedience, studiousness, neatness, punctuality, and the use of correct English.

NATURE STUDY.—Previous lessons continued. Lessons on the butterfly, snail, fish and cow, on simple flowers, on distinguishing and naming common trees and birds.

LITERATURE. — See Appendix.

SECOND TERM**WRITING**

Teach the capital letters on slates or tablets. Copies should be large and accurate. Continue arm movement.

SPELLING

Use the vocabulary of the second reader. Have written exercises. Practice oral spelling, pronouncing the syllables. Review troublesome words daily.

ARITHMETIC

Develop numbers to 25, and drill on combinations. Multiplication and division, involving numbers not larger than 25. Count by 2's, 3's, etc., to 50, and add columns of figures to 50. Fractional parts of numbers where results are integers. Teach terms of a fraction and what each denotes (use objects). Require original, concrete work, and give much drill. Cultivate the use of good language.

THIRD YEAR**FIRST TERM****WRITING**

Begin the use of copy books with pen and ink, and continue until proficiency is attained. Require the forearm movement through all the grades, using practice paper freely.

SPELLING

Continue written exercises. Allow no guessing or hesitation in oral spelling. Have the pupils write many words in sentence on the board or paper to show their meaning.

LANGUAGE

See previous notes. The substance of recent appropriate reading, nature and geography lessons should be written out from memory. Much practice should also be given in oral description and narration with the aim to secure the thought in smooth and connected form. Use much care; remember that formation is easier than reformation. Assist the children over special difficulties such as the correct use of *to*, *too*, *two*; of *see*, *sea*, etc.

ARITHMETIC

Complete multiplication and division tables, and drill on them until children can give results rapidly and accurately. Multipliers and divisors not to exceed 12. Give much practice in addition of columns. Give many concrete problems, oral and written, involving numbers as far as taught. The fractional part of numbers, giving integral results.

GEOGRAPHY

The teacher may secure sketches of the country road or the principal village streets locating the post-office, the railroad station, the cultivated fields, the forest, the mine, and other places of interest, and bringing out items of information in regard to each. He may take the pupils in imagination to the nearest city, and by sketches show the streets, the principal buildings, shops and factories, the means of transportation, the manner of collecting and delivering mail, of drawing water, of lighting, etc. He will draw comparisons and develop some of the advantages of both country and city. After the observation of some nearby locality, including, say, a brook or a hill, the manner of indicating those features on a map should be taught, and the forms should be built in sand. By what is seen, some idea of the distant and unseen may be had. Pictures should be freely used. The general form of the town and the county may be built in sand and drawn with the pencil or crayon. (See previous notes.)

PHYSIOLOGY AND HYGIENE

(See first year note.)

DRAWING

Color.—Review color of the first and second years. Arrange the twelve intermediate hues of the spectrum with the six positives to form the spectrum of eighteen colors. (See Lesson I, fig. 1.) The pupils may produce these hues on the color top and match in flower, leaf, or other object. Group each positive color with its two hues; *e. g.*, red, with its violet hue and orange hue; V. R., R. O. R. Apply and correlate as in previous years.

Form.—Review type forms of previous years. Teach oblate spheroid, prolate spheroid, ovoid, cone, and square pyramid, and objects based upon them. Parts, applications, and drawing as in previous years.

NOTE.—Teach the ellipse and the oval from bisections of the proper solids.

NOTE.—Freehand drawing may follow or precede the mechanical drawing of the geometric figures, angles, lines, etc., as the teacher may elect. Study pictures for these figures.

Botanical Drawing.—Draw leaves and flowers; study their parts; classify according to geometric figures; also according to base, apex, and margin. Review principles of growth. Teach as a law of growth *radiation* (a) from a point, (b) from a line, (c) from a center. Apply as in first and second years.

Measure.—Review former measures, judging and testing. Teach the quarter inch. Rule parallel lines by fixed measurements and perpendicular lines as pairs of parallels.

Illustrative Sketching.—See previous years. Also drawing from memory; original illustrations of words, sentences, and stories. Copy simple pictures for stories and language work.

GENERAL LESSONS

(See the preceding notes.)

VOCAL MUSIC FOR THIRD AND FOURTH YEARS.—Review previous work. Teach whole and eighth notes and rests; repeat marks and dotted quarter notes. Beat $\frac{1}{4}$ time, $\frac{2}{8}$ time and $\frac{3}{8}$ time.

Commence some exercises on the up beat. Teach the scale in key of C, extended upward five sounds, downward four sounds. Give daily practice on the scale. Rote songs.

NATURE STUDY.—Previous lessons continued. Lessons on bees, spiders, frogs, turtles, earth-worms, leaves, fruits, various forms of seeds and manner of self-sowing. The subject of mere structure should not be emphasized at this stage. Leading types of foreign and unfamiliar animals and plants, literature of nature.

LITERATURE.—See appendix.

SECOND TERM

ARITHMETIC

The results in addition, subtraction and multiplication should not exceed 1000. Multiply by numbers of two figures. Teach the terms, sum, subtrahend, minuend, remainder and terms used in multiplication. Continue preceding term's work in fractions, using 4 and 5 as numerators.

FOURTH YEAR

FIRST TERM

SPELLING

Keep a list of all words misspelled for future practice. Have most of the work written. Continue this exercise until there is firmly fixed in mind the habit of spelling correctly all words in common use, and the habit of verifying the form of every word not positively known to be correct.

LANGUAGE

See third-year and first-year notes.

ARITHMETIC

By thorough review, make the four tables perfect. Division: divisor not to exceed 14. Teach the terms used in division and the table of United States money. Fractions: review and extend the work of last term. Give problems, written and oral, involving the above.

GEOGRAPHY

See previous notes.

By calling attention to the form and flight of a ball, a soap bubble or other sphere, the teacher will endeavor to give some idea of the form, size and movements of the earth. A lighted candle and a globe may be used to illustrate the rotation of the earth and the change of day and night. With the same apparatus the intense heat of the direct rays of the sun, the zones, the revolution of the earth and the change of the seasons may be shown. All observation lessons should, as far as possible, be followed by instruction in representation. It is very important that the first study of the position of continents and oceans be made from globes rather than from wall-maps. Small globes may be had for fifteen to twenty-five cents.

PHYSIOLOGY AND HYGIENE.

The law requires that the nature of alcoholic drinks and other narcotics and their effects on the human system shall be taught in connection with the various divisions of physiology and hygiene to all pupils in the fourth to the eighth grades, inclusive, that all such pupils shall be taught and shall study this subject every year with suitable text-books in the hands of all pupils, for not less than three lessons a week for ten weeks, or the equivalent thereof, in each year, and that such pupils must pass satisfactory tests in this as in other studies, before promotion to the next succeeding year's work. For preacademic grades, the text-books in the pupils' hands must be graded to the capacities of fourth year, intermediate and grammar school pupils.

The proper care of the body is of the highest importance in promoting physical, intellectual and moral well being, and much care ought to be taken to prevent the teaching of this subject from becoming merely perfunctory. Material for numerous illustrations may be found in the butcher's shop the kitchen and elsewhere.

DRAWING

DECORATIVE DRAWING. (Early fall and spring).

Color. — Review the six positive spectrum colors and the twelve intermediate hues. Teach two tints and two shades of each. Produce tints and shades by various experiments and on the color top. (See Lesson II.) Teach scale of color; key of the same. Make various arrangements of scales. Match colors, collect objects. Teach warm and cool colors. Review harmony in color, and contrasted harmony. Teach dominant harmony. Find these harmonies in nature and in decoration. (See Lesson IV.)

Botanical Drawing. — Review geometric forms and figures and classify leaves and flowers according thereto. Notice the growth of leaves from the main stem: arrangement, length of stem of leaf, and tangential union. Draw to represent leaves, fruits, seeds, etc. Observe color in plant life. Plant seeds, watch their growth, and make drawings at different stages. Review principles of growth of previous years. Teach *symmetry*, bilateral and radial; distinguish between balance and symmetry. Teach the conventionalization of simple leaves. Observe principles of growth in copying examples of historic ornament and apply them in arranging geometric units and simple conventionalized leaves.

PICTORIAL DRAWING.

Teach picture plane, field of vision, centre of vision, eye level, guide line, and line of direction. Teach (a) position changes the apparent form of objects; (b) distance affects the apparent size of objects; (c) horizontal planes below the eye level appear to rise as they recede, and horizontal planes above the eye level appear to fall; (d) foreshortening, and how it is governed by the length of the line of direction; (e) convergence, but not vanishing point. (See Lessons XXIV to XXVII inclusive.) Observe perspective first upon a transparent picture plane, then by taking proportionate measures with the ruler or pencil. (See p. 58.) Use also cardboard models for observing perspective.

Sketch the sphere, spheroid and ovoid, and objects similar in form. Aim for correct proportion and outline of good quality and character. Repre-

sent solidity by indicating shade and shadow. Practice in applying shade lines. (See pp. 70-83.) Illustrative sketching as in previous grades.

GENERAL LESSONS

(See preceding notes.)

RECITATIONS.—In making selections of matter to be memorized and recited, choose that which is good literature, which inculcates good morals and which teaches patriotism.

Remember that a few choice lines, recited with appreciative understanding and with proper tone and emphasis, are of more value in moulding character than volumes of bombast.

VOCAL MUSIC.—(See note under third year.)

LITERATURE. — See appendix.

SCIENCE LESSONS.—The lessons in the natural sciences herein given are merely suggestive. Many points not here mentioned will incidentally come before a school of bright, observing pupils, and should be made clear by the teacher. It is not expected that a thorough or a complete course in these subjects will be followed during the first nine years of school life, but enough may be done experimentally to furnish the pupils with some useful knowledge of nature, to stimulate their powers of observation, and to encourage a love for the study that shall bring good results hereafter.

Fine material for language lessons may thus be furnished.

Pupils from two or more grades may be combined into one class, for which one lesson a week will be sufficient. Friday afternoon seems to be an appropriate time for these lessons, and, if properly conducted, the whole neighborhood will become interested in them.

The skillful teacher will first arouse in the pupils curiosity, or a desire for knowledge; and, as far as possible, will illustrate every point by experiments and the use of objects.

Continue the study of plants and animals as outlined under Nature Study.

Illustrate the formation of valleys and plains by the carrying and depositing of earth material after a shower.

Exhibit specimens of common minerals and teach their names.

Contrast evergreen and deciduous trees.

Develop the idea of gravity, and give illustrated lessons on weight.

By experiments and numerous illustrations, show that bodies expand by heating. Explain the principle and use of the thermometer.

Dissolve a small lump of salt in a glass of water and see if it can be tasted, thus showing into what minute parts a body may be divided.

In like manner, teach, experimentally, the other universal properties of matter, including indestructibility and porosity.

Soak a bean or other seed, and from it observe how plants begin to grow.

SECOND TERM

LANGUAGE

Same as first term. Children reproduce, in writing, short descriptions of incidents which they have just read for the first time, in the presence of the teacher. These incidents may be clipped from newspapers. Have a daily exercise.

ARITHMETIC

Long division finished. It is advisable to use as divisors 12, 13, 21, 22, 32, etc., at first. Drill on the fractional parts of objects and then of numbers. See that the pupils can analyze a fraction, and can add and subtract fractions with the same denominator. Give thorough reviews of fundamental operations. Teach the table of long measure objectively, *i. e.*, illustrating the distances.

GEOGRAPHY

Maps of the eastern and western hemispheres should next be compared with the globe maps. To avoid confusion in determining the cardinal points and the direction of land slopes, it will be best first to lay the wall-maps flat on the table, the tops toward the north. The continental forms should be moulded in sand and outlined on paper, and the leading characteristics of each division as to climate, plants, animals and people, should be described by the teacher in a manner which will arouse interest and lay a good foundation for further study.

DRAWING

GEOMETRIC DRAWING.

Measure.—Estimate and mark distances from one inch to twelve inches inclusive; also half, quarter, and eighth inches. Review the foot, and teach the yard as a unit of distance; judge and test. Simple exercises in drawing to a scale. (See pp. 27-29.)

Tools.—The rule, drawing board, T square, triangles and compasses. (See pp. 10-12.)

Geometric Terms.—Lines, angles, plane surface and plane figures including triangles and quadrilaterals. (See Lesson V.)

Problems.—I, II, III, IV, V, VI and VII, with exercises. (See Lesson VII.)

Working Drawing.—Plan and elevation of simple rectilinear solids. (See Lessons XI, XII, XIII, XIV and XVI.)

Development.—Patterns of the cube, half cube, square prism, right triangular prism, and similar objects.

FIFTH YEAR

FIRST TERM

READING

In previous lessons, the chief aim has been to recognize the printed forms of words already known. Henceforth, the reading should be for the purpose of thought getting, and the material used should be carefully selected with special regard to matter and form. For class reading, the matter should be of a distinctly literary character, and should consist of both prose and poetry. Generally, each selection should be complete in itself, though for this purpose it ought, in many cases, to be judiciously abridged. The teacher will secure explanations of allusions, figures of speech and obscure passages, and will give systematic training in the use of the dictionary and other works of reference. Fine expression in oral reading is an art.

The home reading should be directed with care, for by it much may be done to supplement the work of the school.

See appendix.

LANGUAGE

It is not intended that a severe course in technical grammar shall be taken up at this stage, but rather that much practice in the actual expression of thought in both oral and written forms shall be supplemented by some elementary instruction on the grammatical forms and relations of words.

The reading, science and literature lessons will furnish admirable bases for language lessons.

As the teacher well knows, very many of our English words are composed of parts which themselves are ancient words in modified form. A thorough study of our language must therefore cover its sources; but before such a course can be entered upon it is desirable that all pupils of grammar grade, many of whom will be denied the privilege of studying Latin or Greek, shall receive some instruction in historic etymology. The teacher may gain assistance from the dictionary, works on word analysis, and some grammars and spellers. After learning the meaning or force of the prefixes, suffixes and stems herein named, the pupils should be given practice in building and defining the English words which can be formed from them.

Prefixes.—*A* or *ab*—from; *ad* (*ac, ag, al, am, an, ap, ar, as, at*)—to, toward; *circum*—around; *con* (*co, col, com, cor*)—with, together; *e* or *ex* (*ef*)—out; *in* (*il, im, ir*)—in, into; *in* (*ig, il, im, ir*)—not; *ob* (*of*)—against; *per*—through; *post*—after; *pro*—before; *re* (*red*)—back; *sub* (*suc, suf, sug, sup, sur, sus*)—under, after.

Suffixes.—*Able* (*ible, ble*); *dom*; *ed*; *en*; *ent*; *er*; *est*; *ful*; *fy*; *ing*; *ion*; *ish*; *ist* (*et*); *less*; *let*; *ling*; *ly*; *ness*; *or*; *ship*; *some*; *y* (*ie*).

Stems.—*Ag, bas, ced, cur, dict, fin, graph, jur, loc, medi.*

ARITHMETIC

Develop factor, multiple, and divisor, with definitions. Teach like and unlike; simple and compound; composite and prime; odd and even; abstract and concrete.

GEOGRAPHY

The class should make a survey of the countries of the New World in respect to location, relief, soil, climate, products, people, occupations, manners, customs and government, much of the matter for which may usually be found in the first part of present elementary text-books. Undue attention should not be given to unimportant details. The sketching or building of geographic forms helps to fix the outlines in mind. By his reading in physical geography, literature, history and works of travel, the teacher should be prepared to supplement the lessons given therein. A story about some animal, a bit of history, the narration of a traveler's experience, or the reading of an appropriate literary selection may be the means of changing aversion or indifference into eager interest. If invited, the pupils will assist in making a collection of minerals and unfamiliar vegetable and animal products, and will learn the source of each.

PHYSIOLOGY AND HYGIENE

(See fourth year note.) By numerous experiments, the use of natural specimens, models, charts, drawings and other apparatus, the ingenious teacher will make these lessons of great interest to the pupils. He will not rest satisfied with mere names.

DRAWING

DECORATIVE DRAWING. (Early fall and spring.)

Color.—Review scales and dominant harmony. Make further studies in dominant harmony, using dark units on light grounds with proper bands of darker tones. Teach broken colors, broken scales, and apply in dominant harmony. Teach neutrals and colored grays (warm and cool grays). Study color in nature and in decoration. (Lessons II and IV).

Botanical Drawing.—Review leaves and classifications of the same. Draw compound leaves. Classify flowers as to form, according to the type solids, and learn their parts.

Review principles of growth. Teach further *contrast* of color, of size, of curves, of the arrangement of parts; *variety* in color, in curve, in form, and in purpose; *strength* in articulation, in the radiation of petals, etc.; *unity* of purpose in the whole; *rhythm* as expressed in the whole plant.

Study principles of growth and conventionalization in good examples of historic ornament and modern decoration. Conventionalize simple flowers and leaves for units of design.

PICTORIAL DRAWING.

Teach the appearance of lines parallel to the eye level; of verticals; and of horizontal receding lines. (See Lesson XXVI.) Also vanishing points, perspective centers, perspective diameters, and the ground line. (See Lesson XXVII.) Continue practice in taking proportionate measures and sketch thereby spherical and cylindrical objects, and simple rectilinear solids. Indicate shade and shadow in all drawings. (See pp. 80–83.) Application of the principles learned in illustrative sketching.

GENERAL LESSONS

(See preceding notes.)

WORKS OF REFERENCE.—Every school should be furnished with works of reference in the various departments of knowledge, to which all who are connected with the school may have easy access. The pupils will need special training in order that they may know how to consult such books intelligently, and in order that the habit of independent research may be formed. A good dictionary is a prime necessity in every department. None but the latest and best should be purchased. From the fourth or fifth grade onward, the pupils should be encouraged to bring small dictionaries for individual use.

VOCAL MUSIC.—(See notes under first and third years.) *Course for fifth and sixth years:* Review. Two-part singing by note introduced. The natural scale. Great and small intervals, giving tones and semitones. The chromatic scale ascending; use of sharp, descending; use of flat, natural. Teach four keys in sharps—G, D, A and E. Teach four keys in flats—F, B flat, E flat, and A flat. Rote songs.

RHETORICAL TRAINING.—Do not make the mistake of thinking that rhetorical training means the haphazard selection, learning and recitation of pieces. In such a course there would be no training at all.

A judicious selection, recited with rhetorical power and skill, after careful training, is of infinitely more value than many pages recited carelessly.

If properly conducted, these exercises will furnish fine opportunities for inculcating beautiful and noble sentiments. These ends should be kept in view in all the exercises in reading.

Every pupil should recite two or three choice selections during each term.

LITERATURE. — See appendix.

SCIENCE LESSONS.— (See note under fourth year.)

Give lessons on luminous and non-luminous bodies; transparent, translucent, and opaque bodies.

Call attention to the remarkable exception to a general rule, that water expands in freezing. Notice the results of this exception.

Show that heated air, by expansion, has become lighter, bulk for bulk, than cold air, and that it is therefore forced to rise by the heavier, colder air which takes its place. Follow with lessons on wind and ventilation.

Observe and account for the migration of birds.

Have pupils observe and study the metamorphoses of tadpoles into frogs.

Have pupils classify known plants, as trees, shrubs or herbs. Teach the functions of the sap, the roots and the leaves. Explain how plants get food or sustenance from the soil and the air.

Have pupils observe the growth of a flower, and learn to distinguish the parts of one. Show how the seed is produced.

SECOND TERM

LANGUAGE

Stems for study: *Migr, mot, not, parl, ped, lud, plot, pos, sent, stru.*

ARITHMETIC

Teachers should require much oral work in order to secure mental alertness and correctness of reasoning. Give problems involving all previous work and simple problems in liquid and dry measures.

DRAWING

GEOMETRIC DRAWING.

Measures.—Review former measures, judging and testing. Continue exercises in drawing to a scale. (See pp. 27–29.)

Tools—As in the fourth year.

Geometric Terms.—Regular polygons and the circle; parts and measures. (See Lesson V.)

Problems.—Review those of the fourth year. Also problems VIII, X, XI, XIV and XV. (See Lessons VIII and IX.)

Working Drawing.—Continue work of fourth year. Review projections of lines, surfaces and simple rectilinear solids on two planes. Teach plan and elevation of simple curvilinear and mixtilinear solids. Representation

of visible edges only. (See Lessons XIX and XX.) Emphasize dimensions found in the plan; dimensions found in the elevation. Make working drawings of simple objects involving the principles studied, using proper conventions for connecting lines and for marking dimensions. Make technical sketches of objects at home.

Development.—Patterns of the equilateral triangular prism and the hexagonal prism, and similar objects. Also patterns of combinations of solids already learned.

SIXTH YEAR

FIRST TERM

READING

See *fifth year* note.

LANGUAGE

Stems for study: *Alt, brev, cent, curr, fa, fest, fig, frang, grat, lat, liter, magn, man, mand.* See *fifth year* note.

ARITHMETIC

Give a thorough review of common fractions. Teach decimals, omitting circulating decimals.

GEOGRAPHY

See *fifth year* note.

PHYSIOLOGY AND HYGIENE

(See *fourth year* and *fifth year* notes.)

DRAWING

DECORATIVE DRAWING.—(Early fall and spring.)

Color—Review. Teach complementary colors. (See Lesson III.) Find the complementary color of each of the six positives. Mount the six with their complementaries. Each complementary harmony; find this harmony in nature and in decoration; illustrate by simple arrangements, using units and principles studied in botanical drawing. (See Lesson IV.)

Botanical Drawing.—Continue the work of the fourth and fifth years in the study of plant forms and laws of growth. Study the growth of flowers, the formation of fruit and seed, and draw at different stages. Make careful analytical drawings of flowers, showing the number and arrangement of parts, etc.; also pictorial drawings, observing the principles of perspective. Study conventionalizations of plant forms in good examples of historic ornament. Conventionalize simple flowers and leaves.

PICTORIAL DRAWING.—Drill in fourth and fifth year work.

Drill in taking proportionate measures and in covering receding edges and angles. Distinguish between parallel and angular perspective, and sketch objects in each, both above the eye and below the eye. (See p. 53, figs-

I and II; rules IV and V, Lesson XXVI.) Sketch groups of objects, paying particular attention to the position of bases. (See Lesson XLIII.) Teach the placing of ornament in perspective by means of perspective diameters and diagonals. Sketch freely modifications of the various type forms and apply principles in illustrative sketching.

GENERAL LESSONS

LITERATURE. — The wisdom of all the ages has been preserved to us in books. By common acceptance, a few books have become classic, and, by reading them, we may bring ourselves into close acquaintance with some of the wisest and greatest men the world has known. The names of a few are included in the list at the end of this manual. They are very useful for supplementary reading. Proper selections should be read at regular times, before the whole school, by teacher or pupils, that the latter may be encouraged in the love of good literature, rejecting that which is trashy and harmful. Bright pupils, who are able to learn their lessons more quickly than their classmates, should be allowed to use some of their spare time in reading choice books or periodicals. See appendix.

RHETORICAL TRAINING AND VOCAL MUSIC. — (See notes under fifth year.)

SCIENCE LESSONS. — Teach the pupils how Nature scatters the seeds of different varieties of plants, as the dandelion, the maple, the burdock.

By familiar animals, as the sheep and the cat, illustrate the points of difference between grass-eating and flesh-eating animals, calling attention to the feet, teeth and other parts, and showing the adaptation of each form to its particular use.

Study the habits of the rodents or gnawers. Illustrate their particular form of teeth by showing the jaws of a squirrel or a mouse.

Show that air and water press sidewise and upward as well as downward.

Let pupils learn how fishes move and breathe; learn to distinguish a number of varieties; find whether they are cold or warm blooded.

Teach pupils to distinguish the parts of a butterfly, or other insect, as the thorax, the abdomen, the antennæ. If it is possible to get a microscope, many curious facts may be learned; for instance, that the butterfly's wing is covered with scales, and that a fly has really many eyes in one.

Give lessons on the evaporation of water and the condensation of vapor, and follow with lessons on clouds, rain and snow.

CALISTHENICS. — A brief calisthenic exercise, about the middle of each session, will be found very beneficial. A musical accompaniment adds interest, but is not essential. Cultivate grace and vigor of body.

SECOND TERM

LANGUAGE

Stems for Study. — *Mont, mir, mult, numer, part, pand, path, pell, plic, prim, sequ, sum, sist, solv, solut.*

ARITHMETIC

Compound numbers. The children should be thoroughly familiar with the tables. Reduction of denominate numbers, ascending and descending. Make out bills. Practice measurements of carpets, walls, ceilings, cisterns, stone walls, cellars, wood and lumber.

DRAWING

GEOMETRIC DRAWING.

Measure. — Continue former measures, judging and testing; drill on finer scale work.

Tools. — As in fourth and fifth years, with protractor. (See p. 12 and p. 18, under Fourth Method.)

Geometric Terms. — Drill on former work, classifying carefully.

Problems. — Drill on former problems, especially on mechanical methods, aiming at skillful handling of the protractor and other tools. Also problems V and IX. (Lessons VII and VIII.)

Working Drawing. — The representation of invisible edges. (See Lessons XVII and XIX.) Working drawings of various objects requiring the representation of invisible edges; also technical sketches of the same class of objects at home. Teach projection on a third plane, or end elevation; also dimensions shown in the end elevation. Apply in making working drawings of various objects. Plan and elevations of simple joints.

Development. — Patterns of the cylinder, half-cylinder and circular plinth; also of combinations of solids. Study manufactured objects made from patterns.

SEVENTH YEAR

FIRST TERM

READING

See *fifth-year* note.

GEOGRAPHY

See *fifth-year* note.

GRAMMAR

From this time on, the study of grammar should be more intensive than formerly, and the principles thus learned should be illustrated and supplemented by constant practice in oral and written expression. The rules of grammar and rhetoric are invaluable as standards by which correctness of language forms may be tested, but a knowledge of these alone cannot make good speakers and writers. A knowledge of rhetoric will add greatly to the value of the teacher's criticism on the language of his pupils.

The reading and memorizing of literary gems are strongly recommended as promoting good morals and presenting artistic models of expression.

Diagrams are helpful in the analysis of sentences, but the teacher is cautioned against excess in their use.

Stems for Study. — *Ann, cad, cing, equ, fact, fess, fil, firm, jus, hospit, leg, lin, man, lun, luc, lut.* (See *fifth-year* note.)

ARITHMETIC

The ability to compute rapidly is a very desirable attainment, one which is particularly useful in business life, but a higher object is to be gained by the

study of arithmetic,—the cultivation of the reasoning powers. The skillful teacher will, therefore, attach much importance to the analysis of problems, that is, to correct statements of the relations between the numbers used and clear explanations of the reasons for the operations.

The forms and methods generally used by business men should be learned; the problems should conform to present customs and conditions.

DRAWING

GEOMETRIC DRAWING.

Measure.—Drill in former measures, apply in other work, and introduce finer scale work.

Tools.—As in the sixth year, with the scale of equal parts. (See p. 12.)

Geometric Terms.—Drill in terms of former grades. Teach terms and measures applied to the regular geometric solids: upper and lower base, altitude, axis, etc.

Problems.—Drill in former problems and in the use of tools. Also problems XII, XVI. (Lesson IX.) Construct foils, basis regular.

DECORATIVE DRAWING.—(Early fall and spring.)

Color.—Review. Teach analogous harmony; study this harmony in nature. (See Lesson IV.) Reproduce examples of historic ornament to illustrate this harmony.

Botanical Drawing.—Make both pictorial and analytical drawings of flowers and compound leaves, and conventionalize the same for use in design. Review principles of growth. Study conventionalizations in the historic ornament of different periods; also in modern ornament. Observe lines of growth, and teach examples of historic ornament illustrating bilateral main lines. Teach *repose* as a necessary factor in all combinations of lines.

PICTORIAL DRAWING.—Trace a square horizontal surface through a transparent picture plane. Set the same to mechanical perspective, locating the center of vision, the eye level, the ground line, and the measuring point. (See Lessons XXVIII to XXXI.) Draw full size on the blackboard and set to scale on paper.

Place a point in perspective. (Lesson XXXII.) Drill.

Place a surface in perspective. (Lessons XXXIII, XXXIV, XXXV.)

Emphasize the value of the measuring point.

Raise verticals on points in perspective. (Lesson XXXVI.) Drill.

PHYSIOLOGY AND HYGIENE

A sound body is the only fit support and habitation for a sound mind; the pupils should, therefore, be impressed with the necessity of taking good care of the body, having regard to the importance of such matters as frequent bathing, eating wholesome food in proper quantities, providing suitable clothing, taking proper exercise, ventilating rooms, and abstaining from the use of tobacco and alcoholic beverages. Drawings and other needed apparatus should be made by the pupils under the direction of the teacher. (See *fourth year* and *fifth year* notes.)

GENERAL LESSONS

(See preceding notes.)

VOCAL MUSIC FOR SEVENTH, EIGHTH AND NINTH YEARS.—Review. Exercises and songs in the nine keys. Two-part singing by note. Dotted half and eighth notes; the tie and sixteenth notes. $\frac{3}{8}$ and $\frac{6}{8}$ time. Triplets.

SCIENCE LESSONS.—By familiar birds, as the hawk, the robin, the duck, and the common fowl, illustrate the points of difference in the forms and natures of the flesh-eaters, the insect-eaters, the fish-eaters, and the grain-eaters.

Give lessons on the ruminants or cud-chewers, illustrating their peculiar forms of stomach, teeth, and other parts, and describing their habits.

Give some knowledge of the principles and applications of the lever, the wheel and axle, the pulley, the inclined plane, the wedge, and the screw.

Let the pupil study the principal races of men, their physical and mental characteristics, and their manner of living.

Tell how it is supposed the crust of the earth was formed by cooling. Follow with lessons on hot springs and the formation of mountain chains by wrinkling.

Describe some plants and animals that once lived on the earth but are now extinct.

By means of a tuning-fork or a bell, show how sound is produced by vibrations. Study waves in a grain field or a pond, and observe that the form progresses but the matter merely vibrates. Show in a similar manner how the air carries sound to the ear.

Teach the characteristic movements of the great storms in this country.

CURRENT EVENTS.—Induce the pupils to read the current newspapers and other periodicals, and have one exercise a week (perhaps on Monday) devoted to the discussion of recent current events. It would be well to have the pupil write a summary of the news as developed in these discussions. Avoid the reading and discussion of improper matter.

SECOND TERM

GRAMMAR

Stems for Study. — *Merc, mitt, mun, nunci, past, pen, per, petr, pon, pend, sacr, sol, tact, tang, teg, termin.*

DRAWING

GEOMETRIC DRAWING.

Working Drawing. — Teach the projection of foreshortened edges and faces. (See Lessons XVII and XXI.) Make technical sketches and working drawings of objects requiring foreshortened projections, e. g., hexagonal prism, rivets, bolts, house with gable roof, etc. Drill on the dimensions shown in such drawings. Drill on three projections of combinations of solids; on invisible edges and foreshortened projections.

Development. — Patterns of the right cone, the square pyramid, the hexagonal pyramid, and similar objects.

PICTORIAL DRAWING.

Draw rectilinear solids in parallel perspective; modify for familiar objects, and shade. Draw to represent the room, street, etc., in parallel perspective.

Study pictures to prove perspective, and copy the best, using principles of perspective. Compare all pictures with nature. Let freehand work and mechanical work go hand in hand, the one to test the other.

EIGHTH YEAR

FIRST TERM

READING

See *fifth-year* note.

ARITHMETIC

See *seventh-year* note.

GRAMMAR

Stems for study.— *Apt, capt, clin, dign, fer, fix, flat, form, gener, ject, lect, log, mar, micro, minn, mod.* (See *fifth-year* note.)

DRAWING

GEOMETRIC DRAWING.

Measure.— As in the seventh year, with finer work.

Tools.— As in the seventh year, with ruling pen and pen compasses.

Geometric Terms.— Review. Teach ellipse and oval.

Problems.— Review former work. The construction of the ellipse and oval.

Scale problems. (See p. 29.)

DECORATIVE DRAWING. (Early fall and spring.)

Color.— Review. Study complementary effects illustrating active and passive colors, and the effect of the juxtaposition of colors. Study the effects of the juxtaposition of colors with neutrals. Study the power of color to define form by modifications of light and shade. Review the harmonies and do more advanced work in each.

Botanical Drawing.— Continue work of previous years. Sprays, buds, flowers, joints and tendrils. Draw the details of the sprays and enlarge the drawings to such size as may be convenient for analysis. Study good illustrations of botanical drawing. Continue the study of conventionalization and historic ornament as in previous grades.

PICTORIAL DRAWING.— Work in angular perspective. (See Lessons XXXV, XXXVII, XXXVIII, and XXXIX.)

Teach the value of diagonals in perspective, and the difference in the measure of the true and the perspective axis of objects. (See Lesson XL.)

HISTORY

A knowledge of geography is an essential foundation for the study of history; it is generally unwise to pursue the latter without good maps close at hand for reference. Collateral home reading is to be encouraged. See appendix for material in the several departments of literature.

Treat the subject topically, but do not allow pupils to recite from the text ver-

batina. Spend a few minutes each day in review of important events of preceding lessons so as to make of them a connected whole. Trace the relation of cause and effect in the succession of events. Only a few of the most important dates should be memorized. Let associated events cluster around these, thus fixing the approximate time of many events by one date.

GENERAL LESSONS

(See preceding notes.)

SCIENCE LESSONS.—Teach the pupils to distinguish the different kinds of soil, as clay, loam, sand, etc. Teach what it is that makes soil fertile. Explain why, in some cases, the fertility becomes exhausted, and show how it may be maintained.

Teach the pupil how to account for drops of water formed on the outside of a cold dish, and follow with a lesson on dew.

By experiment, teach the laws of the pendulum.

Teach why an inverted tumbler, held under water, does not fill, and why any water enters the tumbler.

Let the pupils explain why, when the steam is shut off, a moving train of cars does not suddenly stop. Let them follow with numerous illustrations of the effects of inertia.

By the use of globes, account for the change of seasons, and for the phases of the moon.

Give the pupils some idea of the planets and our solar system, and teach them to locate important stars, particularly the north star.

Account for the ice found on the inside of a window-pane, and follow with a lesson on frost.

Explain the metamorphoses of the butterfly, encouraging the pupils to find natural forms illustrating the caterpillar, the chrysalis, and the perfect insect.

Explain why animals need food, and why they ought not to be limited to one kind of food.

Show that the body of an animal is in some respects like a furnace; and that imperfect shelter or protection creates a demand for more food or fuel.

Many kinds of apparatus, amply sufficient for the ordinary needs of the school, and other useful articles, may well be made by the pupils, under the direction of the teacher, or with his assistance. There are strong reasons why ingenuity and the power to make things should be encouraged by the teacher.

SECOND TERM

GRAMMAR

Stems for study.—*Merg, mon, nat, ocul, pass, physi, pict, pet, port, sci, spec, vag, val, veh, voc.*

DRAWING

GEOMETRIC DRAWING.

Working Drawing.—Teach cross sections. Make working drawings of objects involving parallel sections. (See Lessons XXII and XXIII.) Teach shading to show a recess, and also to show solidity or a protruding part. (Lessons XV, XVIII, and XIX.) Technical sketches and working drawings of details of architectural and machine work, *e. g.*, joints and

parts of structures, doors, windows, bolts, nuts, screws, and simple wheels. Study and learn to read practical working drawings for the shops, in connection with the objects, illustrating the principles studied.

Isometric Projection. — The principles of isometric projection, and the application of the same in depicting objects of which working drawings are made.

Development. — Patterns of the frustum of the cone and the frustums of pyramids, square, pentagonal, and hexagonal, having parallel bases. Application in manufactured objects.

PICTORIAL DRAWING.— Place the circle in perspective mechanically, and build upon it the cone and the cylinder. (See Lessons XLI and XLII.) Place in perspective concentric squares, concentric circles, and draw frustums of the square pyramid and the cone.

Study pictures to ascertain whether principles of perspective have been applied. Sketch and apply principles continually in drawing surrounding objects.

Shading exercises by direct light and by broad treatment in “modeling.” Indicate backgrounds and horizontal surfaces by contrast in tone, also in direction of line. (See pp. 79 and 88.)

NINTH YEAR

GRAMMAR

Stems for Study.—*Anim, carn, cor, duc, fid, grad, fort, fri, fund, fut, junct, liber, loqu, mater, meter, mont, mal, mar, mel, mens, nar, par, pater, phil, port, scrib, salt, salo, scop, sider, spir, ut, un, und, umbr, vern, ur, vid, vio, vert.* (See fifth-year note.)

ARITHMETIC

Review work not thoroughly understood. (See seventh-year note.)

DRAWING

GEOMETRIC DRAWING.

Measure.—Continuation of work of former years.

Tools.—As in former years.

Geometric Terms.—Review. Tangents.

Problems.—Problems XIII and XVII, with exercises (Lessons IX and X).

Also construct circles tangent to each other, externally and internally.

NOTE.—Teach the importance of tangents in making a draught for setting wheels, gearing, etc.

Working Drawing. — Continue work of eighth year. Teach oblique cross sections, and make working drawings of the same. Study simple plans and elevations of buildings from architects' drawings or blueprints. Rapid technical sketches of the school building and other simple buildings, to be

worked up into finished working drawings. Working drawings of parts of machinery.

Isometric Projection.—As in the eighth year.

Development. — Patterns of truncated solids, cut by oblique planes, *e. g.*, the square prism, the square pyramid, the cylinder, and the cone. Applications in manufactured objects.

DECORATIVE DRAWING.

Color. — General review. Study tints to be used as washes in mechanical work. Exercises in coloring to represent stone, wood, steel, brass, etc., or for map drawing.

Botanical Drawing. — Continue pictorial drawings of plant life; also more complete analytical drawings, showing the way leaves are attached, the direction of leaves and stems, their articulation one with another, the difference between the upper and lower leaves, the order of veining, and other important facts, noticing throughout the laws of growth previously mentioned. Continue the study of conventionalization in historic ornament, trace principles of growth, and learn to analyze designs. Conventionalize plant forms and make simple combinations or arrangements, observing the laws governing the same.

PICTORIAL DRAWING.—Continue eighth year work. Review the drawing of all the type forms, with modifications and groups of the same. Practice time sketches. Give special attention to the position of objects in grouping, and draw such objects by mechanical perspective, to avoid interference of bases (See Lesson XLIII.) Compare with time sketches. Continue the shading exercises of the eighth year. General sketching to illustrate the various work of the schoolroom.

HISTORY

About half of this term should be spent on review and completion of United States History, and the other half on the history of the State of New York. If properly directed, the study of history and civil government will prove invaluable as training for good American citizenship.

CIVIL GOVERNMENT

Begin with the school district, and from this take the town, county, state, etc. Point out the three departments of government in each, viz., legislative, executive, and judicial. Study carefully the state and national constitutions. Training in the duties of citizenship is demanded for the enjoyment and perpetuation of the free institutions under which we live.

GENERAL LESSONS

(See preceding notes.)

SCIENCE LESSONS.—Teach the pupils to distinguish different kinds of rocks, as sandstone, limestone, marble, granite, etc., and explain how each was formed. Observe that some rocks lie in layers. Find fossil remains of shells, if possible, thus adding further proof that water once covered that part of the earth. Give a lesson on coal.

Illustrate atmospheric pressure and the nature of a vacuum. Follow with a lesson on the pump.

Explain why a stick, partly immersed in water, appears broken. With the use of mirrors continue the study of the reflection and the refraction of light.

By friction develop electricity in a rubber comb, and notice the effect when brought near bits of paper. Magnetize a sewing needle, suspend it from the middle by a fine thread, and notice the direction it will indicate.

By immersing a strip of copper and one of zinc in dilute sulphuric acid, and connecting the two by a piece of wire, make a galvanic battery and notice the result.

Study the principle upon which telegraph and telephone instruments are based. Show how incandescent and arc lights are produced.

Show the difference between a physical and a chemical change.

Prepare hydrogen, oxygen, nitrogen and carbonic acid, and illustrate their properties by various experiments.

Teach, experimentally, acids and alkalies.

Explain how a flame is produced.

Draw out several reasons for cultivating or handling the soil. Show why weeds are injurious, and when they should be destroyed.

AGRICULTURE.

The principles underlying the science of agriculture should be more generally taught. For books on this subject, see Appendix.

APPENDIX

EXHIBIT No. 6

REPRINT OF

SCHOOL LIBRARIES AND READING

STATE OF NEW YORK
DEPARTMENT OF PUBLIC INSTRUCTION

SCHOOL LIBRARIES
AND
READING

Prepared Under the Supervision of
CHARLES R. SKINNER
State Superintendent of Public Instruction

**"Tis education forms the common mind;
Just as the twig is bent the tree's inclined.**

—*Pope.*

**There is a choice in books as in friends, and the mind sinks
or rises to the level of its habitual society.—*Lowell.***

GENERAL SUGGESTIONS

READING

Books contain the recorded wisdom and culture of ages ; it ought, therefore, with confidence, to be expected that every school will be equipped with a library. One of the most important services which the teacher can render to those under his charge is to train them in the choice and use of books.

Literature is a growth ; hence a vital relation may frequently be seen to exist between literary productions. The pupil should be taught to observe this relation, and to locate in the long procession each author to whom he may be introduced, not necessarily by finding the year of his birth, but by learning in which one of the great literary ages he lived. A study of the manners and customs of the time in which the author lived will heighten the appreciation in which his works are held, but the mistake should not be made of studying the life of the author to the exclusion of his works, nor of merely reading about his works. The author's message to posterity is the principal thing.

The following may serve as a simple outline for the guidance of the young reader in determining literary or chronological relations, and the writers named may be considered great leaders, about each of whom may be grouped the authors of his period.

Pre-historic times

Homer, David, Solomon,
Æschylus, Sophocles, Plato,
Virgil, St. Paul,
Dante, Chaucer,
Shakespeare, Milton,
Goethe, Wordsworth,

about 1000 B. C.
" 500 B. C.
" time of Christ.
" 1300 A. D.
" 1600 A. D.
" 1800 A. D.

Present times.

The ancient myths are the best thoughts of great races in the time of their childhood. They are peculiarly adapted to the child mind now, and when rightly understood are found to contain much

of truth and beauty. Some of the best of these, together with a few carefully selected fairy stories, should be told by the teacher to such pupils as are too young to read them; for instance, the passing away or the coming of the verdure will suggest the stories of Proserpine and the Sleeping Beauty. The rising sun, the floating cloud, the whistling wind and other natural phenomena may be made occasions for the telling of pleasing mythical stories. Some may be found so well written as to make admirable bases for primary reading lessons. To these should be added stories of deeds done by brave and good men in all ages, and such descriptions of animals and their habits, of plants and natural phenomena as the teacher has the skill to adapt to young minds. These lessons may be followed by oral or written language exercises. It is believed that this course will go far to build up an ideal in the child's mind and to stimulate within him a spirituality which will, in a measure, fortify him against the evil with which he will come in contact; furthermore, this seems the best possible preparation for later and more thorough work in literature, history and science.

Nothing is so potent in arousing the interest of the pupil in literature or any other branch of school work as the enthusiastic interest of the teacher. Story-telling is an art which should be cultivated by the primary teacher; success may be known by the voluntary attention given by the hearers. In all grades pictures will be found to create a livelier interest and to lend valuable assistance to the imagination; encouragement should therefore be given to the bringing of photographs, engravings and other pictures which will illustrate the subjects under discussion, and to the collecting of representations of works of art, views of natural scenery, etc.

In grammar and academic grades the frequent reading in the class, by teacher or pupil, of selections from choice books will serve to introduce works of high merit which might otherwise lie neglected. In some instances, the teacher will prefer to read, in order that he may the more readily omit objectionable parts. Oral discussions and written essays will disclose beauties or blemishes not at first noticed, and will quicken the power of the student to grasp and impart ideas. The more advanced pupils will find pleasure and profit in tracing ideas to earlier sources or following them down the stream of time.

It is well to make the reading harmonize to some degree with the topics under consideration by the school. For instance, biography, history, works of travel, and indeed the entire round of literature may be made to supplement delightfully the regular course of les-

sons in geography, and notable current events may be made occasions for literary feasts. The committing to memory and reciting of literary gems by every pupil is strongly recommended. Carefully selected collections of these are listed herein.

Early training in the quick, correct and willing use of works of reference should not be neglected.

No system of education is complete which does not provide for the cultivation of the æsthetic sense. In performing the pleasant duty of increasing the child's appreciation of the beautiful, particularly as allied with the good and the true, the teacher will find poetry an efficient means, and should make certain classics the subjects of frequent study.

THE SELECTION OF BOOKS

The number of books published is so vast that the making of selections for any purpose is often extremely difficult. For this reason the accompanying list has been prepared with the intention of lending assistance to the school officers and teachers upon whom may fall the duty of deciding what books shall be purchased for the school library. It was not of course intended to make the list exhaustive, nor to prejudice the buyer against the selection of other books of equal merit; those herein named, however, have stood the test of actual use. Not only the positively bad books, but the weak, also, must be rejected. Regard must be had to matter and style, to suitability, to material, workmanship and price. Power to interest is so important that books which lack it should generally be excluded in case there is opportunity for choice. It is poor economy as well as bad educational practice to put dull books into a library for the young. Quality should be considered before quantity. Good illustrations add effectiveness to the text. Fine print ruins the eyesight.

Great caution should be exercised in selecting fictitious stories, which some people wrongly consider the only interesting ones. While a liberal proportion of books of the right sort in this department of literature will be approved and is even recommended, it should be borne in mind that much of the fiction on the market is unfit for the young. Works on biography, history, travel, science and literature, and books of reference should form the bulk of every school library, and lists composed wholly or chiefly of fiction will not, therefore, usually be approved. Far seeing trustees will not neglect to put in a few pedagogic works for the benefit of the teachers, present or prospective; the pupils will ultimately be the gainers

thereby. The selection of any works from the catalogue of the state teachers' library will be approved.

The law specifies the classes of books which may be purchased for school libraries, as follows: Reference books for use in the school-room, suitable supplementary reading books for children, or books relating to branches of study being pursued in the school and pedagogic books as aids to teachers.

Binding in cloth or boards is much more durable than in paper, and in the long run is usually more economical and otherwise desirable.

School libraries are not designed for general circulation but rather to meet the wants of the pupils. This consideration should govern the selection and loaning of books.

LAWS AND RULES

The library money apportioned by the state superintendent of public instruction, together with the sum raised by the city or district, upon which the state apportionment is based, may be used for no purpose whatever except the purchase of books. Prior to purchase, and before the state moneys are paid, the city superintendents and the district trustees should, in every instance, submit to the state superintendent lists of the books proposed to be purchased, and should have in return his written approval. Blanks on which to submit such lists will usually be distributed to districts by the school commissioners. Applications for a share in the state library money will be received from the newly elected trustees by the commissioners at the beginning of each school year on blanks furnished by them. Within certain limits, the state will duplicate any sum which the city or district may raise, by tax or otherwise, for library purposes. At present, 1896, the limits for common school districts are \$5 to \$10; for union free school districts, \$10 to \$25. In case the sums applied for by the trustees in any county exceed in the aggregate the sum apportioned to the county, the state apportionment must be scaled down. All library moneys are usually paid to town supervisors and city treasurers with the other public school money in the spring. Text books for reference, but not for common use, may be purchased with these moneys. A moderate number of duplicate copies of any book suitable for supplementary reading, other than those in regular use, will, however, be allowed. Apparatus must be paid for out of a separate appropriation. At the end of the school year special reports will be required of those trustees who have had the handling of library money.

CONSOLIDATED SCHOOL LAW

TITLE XIII.

SECTION 2. "The school library shall be a part of the school equipment and shall be kept in the school building at all times, and shall not be used as a circulating library, except that, so far as the rules fixed by the state superintendent shall allow, teachers and school officers or pupils, with the leave of the librarian, may borrow from said library any book not needed for reference in the school-room, but such persons shall not borrow more than one volume at a time and shall not keep the same more than two weeks. The board of education or trustees shall appoint a teacher of the schools under their charge as librarian, who, with the trustees, shall be responsible for the safety and proper care of the books, and shall annually, and whenever required, make such reports concerning the library as the state superintendent may direct.

§ 4. Each city and school district in the state is hereby authorized to raise moneys by tax in the same manner as other school moneys are raised, or to receive moneys by gift or devise, for starting or extending or caring for the school library.

§ 5. Any board of education in any city or union free school district, or any duly constituted meeting in any other district, is hereby authorized to give any or all of its books or other library property to any township or other free public library under state supervision, or to aid in establishing such free public library, provided it is free to the people of such city or district. * * * *

§ 6. Any books or other library property belonging to any district library, and which have not been in direct charge of a librarian duly appointed within one year, may be taken and shall thereafter be owned by any public library under state supervision which has received from the regents of the university written permission to collect such books or library property. * * * *

§ 7. The public shall not be entitled to use any library now or hereafter in the custody of the school authorities, but said authorities may appoint three trustees who shall have the powers, duties and responsibilities of trustees of public libraries incorporated by the regents and thereafter the school authorities may transfer to the custody of said trustees for the purposes of a circulating library any of their library property as provided in section five.

§ 8. The state superintendent of public instruction is hereby authorized to withhold its share of public school moneys from any city or district which uses school library moneys for any other purpose

than that for which they are provided, or for any willful neglect or disobedience of the law or the rules or orders of said superintendent in the premises."

Citizens desiring to establish a public circulating library may, under certain conditions, receive assistance through the regents of the state university. School officers should be leaders in promoting so beneficent a cause.

PURCHASING BOOKS

Usually it will be best to make purchases of a reliable local dealer. Such a person will generally give a liberal discount from the regular list prices, from 10 to 30 per cent, for cash on a large order. He should be given time to order any books which he does not happen to have, for it is not to be expected that he will have in stock every book on the trustees' lists. The difficulty with some dealers is that they undertake to substitute a different book or a different edition, claiming that it is "just as good" or "cheaper." Trustees who reside in secluded districts are advised that any books published may be had cheaply and promptly of certain well-known firms in some of the larger villages and cities.

CARE OF THE LIBRARY

The books should be kept in an upright position, free from dust, in a room or a case provided for the purpose. Dictionaries, encyclopædias, atlases and other works of reference, together with copies of choice periodicals, should be kept in the most accessible place, and reading tables and chairs should be provided.

A simple and convenient method of keeping a record of the service of each book is to note on a card headed with the title of the volume the name of each borrower, and the dates on which the book is loaned and returned. When the book is out, the card should be retained; when the book is in, it should be kept in a manilla envelope pasted inside the cover. As the number of volumes increases, the need of system and special training on the part of the librarian is more strongly felt.

Unless read, books, which may contain the food of intellectual or spiritual life, are of no more use than blocks of wood; and the librarian who, Hatto-like, hides his treasures in dark and distant rooms, or by surly manners and infrequent hours of opening prevents access to them, may, indeed, preserve his books, but he deserves the fate of the one who hid the talents. Such a course is of harmony with the spirit and general practice of the times.

The librarian who proceeds upon the theory that he is conferring a favor upon the pupil to whom he deals out books from the school library is in error as to the relations which exist between the state and the public schools.

If the pernicious reading of these times is to be supplanted by that which is pure, the vender's custom of exposing his wares must be imitated; and the result of this competition will more surely be satisfactory if the good books are the more attractive, interesting and accessible. It is, therefore, earnestly recommended that a choice collection be placed in every school building, or, what is better, in every study room, laying no restriction whatever upon the use of it at any time except previous preparation for regular lessons, thus accomplishing a cherished object and at the same time setting a premium on intense application. In villages and cities, for the sake of economy, small traveling libraries consisting of suitable selections from the main local library may be made to meet the commonest wants of the several grades, and to serve as samples from the general storehouse and silent solicitors of further patronage.

For both pedagogic and economic reasons, the faithful librarian will see that the books in his care are properly handled and promptly returned. He will keep a record of his transactions, and at the close of the year will submit a report to the trustees.

A GENERAL COURSE OF READING

The following outline is designed rather to suggest the quality of the matter which ought to be placed in the hands of the young, its classification and a proper order of use, than to indicate an inflexible course. While there are a few books which should be read in due time by every pupil, diverse tastes, which result from differing character and environment, should, to a certain extent, be gratified. The successful teacher will learn the needs of each pupil, and will find a way to satisfy them with wholesome and palatable literary food, in the class and in the home.

It is strongly recommended that selections for the pupil's reading in any one year be made from at least three different classes, thus somewhat avoiding narrowness of culture. During the early years the teacher will tell or read to the pupils such stories as they themselves cannot readily read. The children will sometimes surprise the teacher by comprehending matter which was thought to be too difficult for them. Some of that which is classed herein as intermediate or advanced, would be enjoyed by children of primary grades. There is doubtless as much danger of underestimating as of overestimating the ability of the pupil.

In order that the child may grow up in a literary atmosphere and have the advantages of the world's best thoughts before his school days, which may be few, are ended, the teacher should early present some of the masterpieces in story form, or should read selections from them. Later, the entire original works may be read by the pupil. This plan makes heavy demands on the teacher for preparation, as, indeed, suggestions of value in any line of educational work would do, but honest effort will not be without reward.

FIRST YEAR

Greek myths. (See Age of fable, Myths and myth-makers.)

Jack and the beanstalk, Red Riding Hood, Cinderella, Æsop's fables, etc. (See Fables and folk stories and Old stories re-told.)

Bible stories: Daniel, David, Prodigal son, etc.

Heroes: Columbus, Washington and others.

Stories about animals, plants, etc.

Poems and rhymes. (See Selections for memorizing, Heart of oak, vol. I, Open sesame, vol. I.)

SECOND YEAR

Greek myths (continued).

The ugly duckling, The sleeping beauty (both in Andersen's or Scudder's), Little Daffydowndilly, The Nurnberg stove (in Bimbi), Alice in Wonderland.

Bible stories: Noah, Ten commandments, Loaves and fishes, etc.

Tales of primitive people, including Indians and Esquimaux: Habits, food, dress, dwellings, tools, etc.

Heroes of all ages. (See biographies and histories, including Stories of great Americans for little Americans.)

Nature stories. (See list for material.)

Poems and rhymes. (See *First Year*.)

THIRD YEAR

Norse myths. (See Story of Siegfried, and Story of the German Iliad.)

Sparrow, the tramp, Little lame prince, Uncle Remus, etc.

Stories about Joseph, Samson, Fulton, Franklin, Gutenberg, Watt, Zenobia, Audubon, etc.

Nature stories, Stories Mother Nature told her children, Seven little sisters, Each and all.

Poems. (See *First Year*.) Poetry for children

FOURTH YEAR

Stories from Homer's Iliad, The Chimæra and The golden touch (from Wonder book), Legends of King Arthur and Charlemagne. (See Age of chivalry, etc.)

Arabian nights, Flipwing, the spy.

Colonial children, Children of the cold, Ten boys, Stories of Roman life.

Stories about Leonidas, Bruce, Joan of Arc, Elizabeth, La Salle, Raleigh, Penn, Florence Nightingale, etc.

Queer little people, Seaside and wayside, Little folks in feathers and fur, Fairyland of flowers.

Birds' Christmas Carol, "Us," Letters from a cat.

Poems. (See *First Year*.) Heart of oak, vol. 2, Whittier's Barbara Freitchie, Holmes' Darius Green and One hoss shay, Longfellow's Hiawatha, Paul Revere's ride, Bryant's Robert of Lincoln, America.

FIFTH YEAR

Stories from Homer's Odyssey, The miraculous pitcher (in Wonderbook), Stories from Virgil's Æneid.

Pilgrim's progress, At the back of the North Wind, Gulliver's travels, Prince and pauper.

Stories from ancient and modern history, Stories from Livy, American history stories.

Plutarch's Lives, Alexander the great, Cleopatra, Magellan, Cortez, Boone, John Smith, Grace Darling, Jenny Lind.

Fairy geography, Boys of other countries, Bodley books.

Childhood of the world, Stories of the sagacity of animals, Wings and fins, Nature study.

Robinson Crusoe, Four Macnichols, Grandmother dear, Nelly's silver mine, Five little Peppers, Jan of the windmill, Blind brother, Juan and Juanita, Dickens' Christmas carol.

Poetry. (See Selections for memorizing, Open sesame, vol. II, Heart of oak books, vols. III and IV, Poetry for children and Child life.) Byron's Sennacherib, Browning's Pied piper, Southey's Bishop Hatto, Woodworth's Old oaken bucket, Bryant's Planting of the appletree, Whittier's Three Bells, Longfellow's Village blacksmith, Reade's Sheridan's ride.

SIXTH YEAR

Greek heroes, Stories from Chaucer, Stories from Plato, Wonder book.

Sketch book, A-hunting of the deer, Being a boy.

Poor boys who became famous, Girls who became famous, Alfred the great, Peter the hermit, Drake, Kit Carson.

Beginners' American history, First book in American history, Book of golden deeds, Children's stories in American history, Children's stories in American progress.

Family flights, Knocking round the Rockies.

Black Beauty, Home studies in nature, First book of zoology, Through magic glasses, Neighbors with claws and hoofs.

Hans Brinker, Little Lord Fauntleroy, Twice-told tales, Little women, Little men, Boys of Greenway Court, Boy emigrants, Heidi, Mysterious island, What Katy did.

Poetry. (See *Fifth Year*.) Tennyson's Enoch Arden, Byron's Prisoner of Chillon, Burns' For a' that and a' that, Bryant's To a waterfowl, Lowell's The heritage, Whittier's The barefoot boy and Poor voter on election day, Longfellow's The children's hour and Evangeline.

SEVENTH YEAR

Tanglewood Tales, Tales from Shakespeare, Cicero's Friendship. King of the Golden River, Alhambra.

Historic boys, Historic girls, Boys' book of famous rulers, Girls' book of famous queens, Heroes and martyrs of invention, Cyrus the great, Paul Jones, Tecumseh, Franklin's Autobiography.

Outlines of the world's history, Story of liberty, Old times in the colonies, Boys of '76, Building of the nation, Child's history of England.

Zigzag Journeys, Century World's Fair book, Two years before the mast, Thousand miles walk across South America.

Naturalist's Voyage in the Beagle, Easy star lessons, Madam How and Lady Why, Ocean of air, Domesticated animals, Sharp eyes.

Man without a country, Uncle Tom's cabin, Two little Confederates, Cudjo's cave, Faith Gartney's girlhood, We girls, Timothy's quest, Around the world in eighty days, Deerslayer, The spy, Tom Brown at Rugby, On the old frontier, Under Drake's flag.

Poetry. (See *Fifth Year*.) Shakespeare's Midsummer night's dream, Coleridge's Ancient mariner, Finch's Nathan Hale, Howe's Battle hymn of the republic, Shelly's Cloud, Emerson's To a humble-bee, Bryant's A forest hymn, Whittier's Maud Muller, Lowell's First snowfall, Longfellow's Courtship of Miles Standish.

EIGHTH YEAR

Famous American statesmen, Famous voyagers and explorers, American authors for young people, Men of business, Story of Columbus, Thomas à Becket, Henry VIII, Cromwell, Abraham Lincoln.

Magna charta stories, Indian history for young folks, Burgoyne's invasion, Century book for young Americans, Rear-guard of the Revolution, Child's history of Greece and Rome, Historical tales.

Drum-beat of the nation, Marching to victory, Redeeming the republic, Freedom triumphant.

Boy travelers, Some strange corners of our country.

First book of geology, Forms of water, Birds and bees, History of a mouthful of bread, Succession of forest trees.

Pathfinder, Pilot, With Clive in India, Midshipman Paulding, Prue and I, Battle of New York, Dab Kinzer, Kidnapped, It is never too late to mend, From the earth to the moon, What Katy did at school.

Poetry : (See *Fifth year*,) Shakespeare's Julius Cæsar and Merchant of Venice, Burns' Cotters' Saturday night, Byron's Childe Harold, Lowell's Vision of Sir Launfal, Coleridge's Christabel, Hail Columbia, Star spangled banner.

Aristophanes' Knights and Birds, Racine's Athaliah, Catullus' Poems, Germania, Picciola, Debit and credit, Herman and Dorothea.

NINTH YEAR

Brief biographies, Captains of industry, Children's stories of the great scientists, About old story-tellers, William the conqueror.

Blue jacket series, France and England in North America, The making of the great west, Story of Chaldea, Roman life in the days of Cicero, History of the plague in London.

Along the Florida reef, Knockabout club, Around the world in the "Sunbeam," How I found Livingstone, Ocean steamships.

Servants of the stomach, Sun, moon and stars, Up and down the brooks, Adventures of a young naturalist, Wake robin, Birds through an opera glass, Electricity for everybody.

David Copperfield, John Halifax, Remember the Alamo, Refugees, Ivanhoe, Story of a bad boy, Last of the Mohicans, Silas Marner.

Ethics of the dust, My summer in a garden, Familiar talks to boys, Chats with girls, Reveries of a bachelor, Tales of a traveler, First Bunker Hill oration, Lincoln's Gettysburg address, (in "Selections.").

Shakespeare's *Tempest*, Goldsmith's *Deserted village*, Scott's *Lady of the lake*, Whittier's *Snow bound*, Cowper's *Task*, Byron's *Corsair*, Dryden's *Ode on St. Cecilia's day*, Warren's *Address*, *Prologue to Canterbury tales*, *Home, sweet home*. (See also *Selections for memorizing*, *Open sesame*, vol. III, *Library of poetry and song*.)

Æschylus' Agamemnon, *Seven against Thebes*, Schiller's *Wilhelm Tell*, *Wallenstein*, Horace's *Odes*, *Andromache*, *Paul and Virginia*, *Æneid*.

TENTH YEAR

Getting on in the world, On the threshold.

Alexander the great, Cæsar, Napoleon, Hamilton, Webster, The moral crusader, Famous American authors, Famous English authors.

Among the law makers, War of Independence, Discovery of America, Story of New York, Stories of the nations.

Oregon trail, Our new way round the world, Across Asia on a bicycle, Boys coastwise.

Life and her children, How to know the wild flowers, Star land, Chemical history of a candle, Animal life on sea and land.

Tale of two cities, Old curiosity shop, Kenilworth, Dove in the eagle's nest, Hoosier schoolmaster, Ramona, Lorna Doone, Arthur Bonnicastle, In the valley, Waterloo.

Bacon's *Essays*, Carlyle's essay on Burns, Burke's *Conciliation with America*, Macaulay's *Essay on Bacon*, Backlog studies, Confessions of an opium eater.

Shakespeare's *Lear*, Bryant's *Thanatopsis*, Longfellow's *Building of the ship*, Chaucer's *Knight's tale*, Dryden's *Alexander's feast*, Gray's *Elegy*, Pope's *Rape of the lock*, Thompson's *Castle of indolence*, Sheridan's *Rivals*, Shelly's *Prometheus unbound*. (See also Lowell's and Longfellow's *Prometheus*), *Comus*, *Marco Bozarris*.

Prometheus bound, (*Æschylus*), *Old age*, *Oration on the crown*, Heine's *Book of song*, Terence's *Comedies*.

ELEVENTH YEAR

Character, Self help.

Livingstone, Two spies, Lord Nelson, Wellington, Patrick Henry
Marie Antoinette, Mary Queen of Scots.

History of New York, History of England (Macaulay's or
Knight's), Conquest of Peru.

Voyage in a paper canoe, Land of the midnight sun, Afloat and
ashore on the Mediterranean, Boots and saddles.

Geological story briefly told, Smoking and drinking, How plants
behave, Principles of agriculture, Experimental science.

Dombey and son, Last days of Pompeii, Romola, Marble faun,
Old creole days, Princess of Thule, New England girlhood, House
of seven gables, Henry Esmond.

Civil government in the United States, Politics for young Ameri-
cans.

Macaulay's Essay on Johnson, Locke's On the conduct of the
understanding, Emerson's American scholar, Sartor resartus.

Shakespeare's Macbeth, Wordsworth's Intimations of immortality,
Holmes' Old Ironsides, Tennyson's The princess, Scott's Marmion,
Johnson's Every man in his humor, Dryden's Hind and panther,
Lowell's Commemoration ode, Gray's Progress of poesy, Brown-
ing's Pippa passes, Shelly's To a skylark, Faerie Queene, Paradise lost
(Books 1 and 2), Essay on man, Areopagitica.

Iliad (Pope's or Bryant's Tr.). Faust, Doctor Faustus, Les mis-
erables, Moliere's Femmes savantes, Tacitus' Agricola, Juvenal's
Satires (expurgated), Sophocles' Œdipus tyrannus, Œdipus Co-
lonus, and Antigone.

TWELFTH YEAR

What career? On self culture.

Great lives, Hannibal, Gibbon, Washington, Clay, Grant.

History of civilization, Fifteen decisive battles, Decline and fall
of the Roman Empire, Short history of architecture.

Winners in life's race, Sketches of creation, Beauties of nature,
Young housekeeper, The earth and man.

Ben Hur, Adam Bede, The Newcomes, Rise of Silas Lapham,
Oldtown folks, Rob Roy, Rienzi, Uarda, Rasselas.

Patriotic citizenship, The American citizen, American political ideas.

Macaulay's Essay on Chatham, Emerson's Compensation, Autocrat of the breakfast table, Heroes and hero worship, Sesame and lilies, Sir Roger de Coverly papers.

Scott's Lay of the last minstrel, Wordsworth's Excursion, Tennyson's Idyls of the king, Gray's Bard, Browning's Blot in the scutcheon, Milton's Samson Agonistes, Spenser's Epithalamium, Emerson's Concord hymn, Holmes' Union and liberty, and The chambered nautilus, Essay on criticism, Lalla Rookh, Light of Asia, Shakespeare's As you like it and Hamlet, Bryant's The conqueror's grave, Longfellow's Psalm of life.

The Odyssey, Laocoön, Nathan the wise, Thirty years of Paris, De rerum natura, Plato's Apology and Crito, Horace's Ars poetica, Moliere's Misanthrope, Divina commedia.

A LIST OF BOOKS SUITABLE FOR SCHOOL LIBRARIES

HISTORY.

NOTE.—*c* denotes suitability for primary grades; *b*, for intermediate grades; *a*, for advanced grades. Binding, cloth, unless otherwise stated.

TITLE	Grade	Author	Publisher	Price
American history stories (4 vols., Illus., each 50c.) Boards.....	bc	Pratt	Ed. Pub. Co....	\$2 00
American life and adventure (Illus.)	bc	Eggleston	Am. Bk. Co....	50
American Revolution, The (2 vols.)	a	Fiske	Houghton	4 00
Advance guard of western civilization [follows "Rear G'd." etc.]	ab	Gilmore (Kirke)	Appleton	1 50
Beginners' American history.....	b	Montgomery...	Ginn	75
Book of golden deeds	b	Yonge	Macmillan	50
Boys of '76 [follows "Old times," etc.] (Illus.).....	b	Coffin	Harper	3 00
Building of the nation [1783-1860] (Illus.)	b	Coffin	Harper	3 00
Boys of '61 [these four vols. in series, Illus.].....	b	Coffin	Estes.....	3 00
Blue jackets of '76 [Navy] (Illus.)	b	Abbott	Dodd	2 00
Blue jackets of 1812 [Navy] (Illus.)	b	Abbott	Dodd	2 00
Blue jackets of '61 [Navy] (Illus.)	b	Abbott	Dodd	2 00
Brave little Holland and what she has taught us	a	Griffis	Houghton	75
Brief history of Empire State.....	ab	Hendrick.....	Bardcen....	75
Burgoyne's invasion	ab	Drake	Lee	40
Children's stories in American history (Illus.).....	b	Wright	Scribner	1 25
Children's stories of American progress (Illus.).....	b	Wright	Scribner	1 25
Child's history of Greece (2 vols., Illus.)	ab	Bonner	Harper	2 00
Child's history of Rome (2 vols., Illus.)	ab	Bonner	Harper	2 00
Child's history of Spain (Illus.)...	ab	Bonner	Harper	2 00
Child's history of France (Illus.)..	ab	Bonner	Harper	2 00
Child's history of England.....	ab	Dickens	Lovell.....	50
[Civil War] Drum-beat of the nation ['61, '62] (Illus.).....	b	Coffin	Harper	3 00
[Civil War] Marching to victory [1863] (Illus.).....	b	Coffin	Harper	3 00
[Civil War] Redeeming the republic [1864] (Illus.)....	b	Coffin	Harper	3 00
[Civil War] Freedom triumphant ['64, '65] (Illus.).....	b	Coffin	Harper	3 00
Civil government in the United States.....	a	Fiske	Houghton	1 00
Conquest of Mexico (3 vols.)..	a	Prescott	Lippincott	1 50
Conquest of Peru (2 vols.).....	a	Prescott	Lippincott	1 00
Conspiracy of Pontiac (2 vols.)...	a	Parkman	Little.....	3 00
Decline and fall of the Roman empire (6 vols.).....	a	Gibbon	Harper	3 00

HISTORY—Continued

TITLE	Grade	Author	Publisher	Price
Discovery of America (2 vols., Illus.)	a	Fiske	Houghton	\$4 00
Fifteen decisive battles of the world	a	Creasy	Harper or Estes.	1 00
First book in American history . . .	b	Eggleston	Am. Bk. Co. . . .	60
France and England in North America:				
I. Pioneers of France in the New World	a	Parkman	Little	1 50
II. Jesuits in North America in the 17th century	a	Parkman	Little	1 50
III. Discovery of the great north-west	a	Parkman	Little	1 50
IV. Old regime in Canada	a	Parkman	Little	1 50
V. Count Frontenac and New France under Louis XIV.	a	Parkman	Little	1 50
VI. Half-century of conflict [1700-1748] (2 vols.) . . .	a	Parkman	Little	3 00
VII. Montcalm and Wolfe (2 vols.)	a	Parkman	Little	3 00
General sketch of history	a	Freeman	Holt	1 10
Historical tales [America, England, France, Spain] (4 vols.) <i>each</i> . . .	ab	Morris	Lippincott	1 25
History of civilization in Europe (3 vols.)	a	Guizot	Macmillan	3 00
History of England (1685-1702, 5 vols.)	a	Macaulay	Harper	2 50
History of England, The popular (9 vols., Illus.)	a	Knight	Lovell	10 00
History of France	a	Duruy	Crowell	2 00
History of the great plague	b	Defoe	Macmillan	50
History of the United States, Larger (Illus.)	a	Higginson	Harper	3 50
Indian history for young folks (Illus.)	b	Drake	Harper	3 00
Japan in history, folk-lore and art. .	a	Griffis	Houghton	75
Magna charta stories [Tales of heroism]	b	Gilman	Lee	50
Making of New England, The (Illus.)	ab	Drake	Scribner	1 50
Making of Virginia and the middle colonies, The (Illus.)	ab	Drake	Scribner	1 50
Making of Ohio valley states, The (Illus.)	ab	Drake	Scribner	1 50
Making of the great west, The (Illus.)	ab	Drake	Scribner	1 50
New England girlhood, A	a	Larcom	Houghton	75
Old times in the colonies [1492-1760 (Illus.)	b	Coffin	Harper	3 00
Oregon trail, The (Illus.)	ab	Parkman	Little	1 00
Outlines of the world's history . . .	a	Swinton	Amer. Book Co. . .	1 50
Primer of sculpture, A (Illus.) . . .	a	Mullins	Cassell	1 00
Roman life in the days of Cicero . .	ab	Church	Dodd	1 00
Rear-guard of the Revolution [Tenn. pioneers]	ab	Gilmore	Appleton	1 50
Short history of architecture (Illus.)	a	Tuckerman	Scribner	1 50
Short history of English people . . .	a	Green	Harper	1 20
Stories of colonial children (Illus.)	bc	Pratt	Ed. Pub. Co. . . .	50
Stories from Livy	ab	Church	Dodd	1 00

HISTORY — Continued

TITLE	Grade	Author	Publisher	Price
Stories from English history (Illus.)	ab	Church	Macmillan	\$1 00
Stories of the East from Herodotus	ab	Church	Dodd	1 00
Stories of invention	ab	Hale	Roberts	1 00
Story of New York [State] (Illus.).	a	Brooks	Lothrop	1 50
Story of liberty [Magna charta to Pilgrims] (Illus.)	b	Coffin	Harper	3 00
Story of Chaldea (Illus.)	a	Ragozin	Putnam	1 50
(The stories of the nations, published by Putnam's Sons, also includes Assyria, Persia, Ancient Egypt, Greece, Rome, the Goths, early Britain, the Saracens, Germany, Norway, etc., all illustrated, price \$1.50 each)				
Ten boys, etc. [Ancient and modern times]	b	Andrews	Lee	50
True stories from New England history	ab	Hawthorne	Houghton ..	45
War of Independence	ab	Fiske	Houghton	40
Winning of the West (3 vols.)	a	Roosevelt	Putnam	7 50
Young folks' book of American explorers (Illus.)	ab	Higginson, ..	Lee	1 25

BIOGRAPHY**Collective**

TITLE	Grade	Author	Publisher	Price
About old story-tellers [Scott, Goldsmith, etc.] (Illus.)	ab	Mitchel	Scribner	\$1 25
American authors for young folks.	ab	Harris	Lothrop	1 00
Boys' book of famous rulers.	ab	Farmer	Crowell	1 50
Boys who became famous, Poor...	ab	Bolton	Crowell	1 50
Brief biographies	ab	Smiles	Lippincott	1 25
Captains of industry (2 vols.)	ab	Parton	Houghton	2 50
Children's stories of the great scientists	ab	Wright	Scribner	1 25
Famous American authors	ab	Bolton	Crowell	1 50
Famous American statesmen	ab	Bolton	Crowell	1 50
Famous English authors	ab	Bolton	Crowell	1 50
Famous men of science	ab	Bolton	Crowell	1 50
Famous voyagers and explorers...	ab	Bolton	Crowell	1 50
Girls who became famous	ab	Bolton	Crowell	1 50
Girls' book of famous queens.	ab	Farmer	Crowell	1 50
Great lives [Hercules to Grant] ...	ab	Mombert	Leach	1 25
Heroes and martyrs of invention (Illus.)	ab	Towle	Lee	1 00
Historic boys [From every age] (Illus.)	ab	Brooks	Putnam	1 50
Historic girls [From every age] (Illus.)	ab	Brooks	Putnam	1 50
Men of business [Vanderbilt, etc.] (Illus.)	ab	Stoddard	Scribner	2 00

BIOGRAPHY—Continued

TITLE	Grade	Author	Publisher	Price
Musical composers and their works	a	Tytler	Roberts	\$1 50
Old masters and their pictures....	a	Tytler	Roberts	1 50
Plutarch's lives of the ancients (Bds.).....	ab	White, ed.....	Ginn	40
Stories of great Americans for little Americans (Illus.).....	bc	Eggleston	Am. Bk. Co....	40
Two spies [Hale and Andre]..	a	Lossing	Appleton	2 00

Individual

Adams, John.....	a	Morse	Houghton	1 25
Alexander the great (Illus.).....	b	Abbott	Harper	1 00
Alfred the great (Illus.)	b	Abbott	Harper	1 00
Boone, Daniel... ..	b	Abbott	Dodd	1 25
Bryant, William Cullen.....	a	Bigelow	Houghton	1 25
Calhoun, John C	a	Von Holst.....	Houghton	1 25
Carson, Kit	b	Abbott	Dodd	1 25
Charles I (Illus.).....	b	Abbott	Harper	1 00
Charles II (Illus.)	b	Abbott	Harper	1 00
Clay, Henry (2 vols.).....	a	Schurtz.....	Houghton	2 50
Cleopatra (Illus.)	b	Abbott	Harper	1 00
Columbus, Story of (Illus.).....	ab	Seelye	Appleton	1 75
Cook, Captain	ab	Besant	Macmillan.....	60
Cooper, J. Fenimore.....	a	Lounsbury.....	Houghton	1 25
Cortez (Illus.)	b	Abbott	Harper	1 00
Crockett, David	b	Abbott	Dodd	1 25
Cyrus the great (Illus.)	b	Abbott	Harper	1 00
Darius the great (Illus.) ..	b	Abbott	Harper	1 00
De Soto, Ferdinand.....	b	Abbott	Dodd	1 25
Drake (Illus. Boards).....	b	Towle	Lee	60
Elizabeth (Illus.).....	b	Abbott	Harper	1 00
Emerson, Ralph Waldo	a	Holmes	Houghton	1 25
Franklin's autobiography	ab	.....	Houghton	40
Genghis Khan (Illus.)	b	Abbott	Harper	1 00
Gordon, General.	ab	Butler.....	Macmillan.....	60
Grant, Gen. U. S. (Illus.)	ab	Austin	Lee	1 50
Hamilton, Alexander	a	Lodge	Houghton	1 25
Hannibal (Illus.)	b	Abbott ...	Harpe	1 00
Henry, Patrick.....	a	Tyler.....	Houghton	1 25
Henry IV. (Illus.).....	b	Abbott	Harper	1 00
Irving, Washington.....	a	Warren	Houghton	1 25
Jackson, Andrew.....	a	Sumner.....	Houghton	1 25
Jay, John	a	Pellew	Houghton	1 25
Jefferson, Thomas	a	Morse.....	Houghton	1 25
Jones, Paul	b	Abbott	Dodd.....	1 25
Julius Caesar (Illus.).....	b	Abbott	Harper	1 00
Kidd, Captain.....	b	Abbott	Dodd.....	1 25
La Salle.	b	Abbott	Dodd.....	1 25
Lincoln, Abraham (Illus.).....	ab	Brooks	Putnam	1 75
Lincoln, Abraham (Illus.)	ab	Coffin	Harper	3 00
Livingstone	ab	Hughes.....	Macmillan	75
Longfellow, Henry Wadsworth ...	a	Underwood....	Houghton	1 50
Louis XIV. (Illus.).....	b	Abbott	Harper	1 00
Louis Philippe (Illus.).....	b	Abbott	Harper	1 00
Lowell, James Russell (2 vols.)...	a	Woodberry	Houghton	2 50
Memoirs	a	Grant.....	Webster ...	75
Magellan (Illus., Bds.)	b	Towle.....	Lee	60
Marco Polo (Illus., Bds.).....	b	Towle.....	Lee	60

BIOGRAPHY — Continued.

TITLE	Grade	Author	Publisher	Price
Marie Antoinette (Illus.).....	b	Abbott	Harper	\$1 00
Mary, queen of Scots (Illus.)	b	Abbott	Harper	1 00
Marshall, John	a	Magruder	Houghton	1 25
Memoirs	a	Gibbon	Houghton	1 00
Miles Standish	b	Abbott	Dodd.. . . .	1 25
Moral crusader, The [Garrison] . . .	a	Smith	Funk.	1 00
Napoleon	a	Morris	Putnam	1 50
Nelson, Lord	a	Southey	Routledge	40
Nero (Illus.)	b	Abbott	Harper	1 00
Peter the great (Illus.)	b	Southey	Harper	1 00
Peter Stuyvesant.	b	Southey	Dodd	1 25
Philip, chief of the Wampanoags (Illus.)	b	Southey	Harper	1 00
Pizarro (Illus., Bds.)	b	Towle	Lee	60
Raleigh (Illus., Bds.)	b	Towle	Lee	60
Richard I, II, III (Each \$1)	b	Abbott	Harper	3 00
Romulus	b	Abbott	Harper	1 00
Tecumseh	ab	Eggleston & S. . .	Dodd	1 00
Vasco de Gama (Illus., Bds.)	b	Towle	Lee	60
Washington (Abridged by Fiske, Ginn, \$1)	a	Irving	Putnam	1 50
Washington	ab	Scudder	Houghton	40
Wellington	a	Hooper	Macmillan	60
Webster, Daniel	a	Lodge.	Houghton	1 25
Whittier, John Greenleaf	a	Underwood	Houghton	1 50
William the conqueror	b	Abbott	Harper	1 00

TRAVEL

TITLE	Grade	Author	Publisher	Price
Across Asia on a bicycle (Illus.) . .	a	{ Allen and Sach- tleben	Century	\$1 50
Afloat and ashore on the Mediter- ranean (Illus.)	ab	Meriwether	Scribner	1 50
Along the Florida reefs (Illus.) . . .	ab	Holden	Appleton	1 50
Around the world in the "Sun- beam" (Illus.)	a	Brassey	Holt	2 00
Bodley books (8 vols.)				
Doings of the Bodley family . . .				
The Bodleys telling stories				
The Bodleys on wheels				
The Bodleys afloat				
Mr. Bodley abroad				
Bodley grandchildren in Hol- land				
English Bodley family				
The Viking Bodleys, each	bc	Scudder	Houghton	1 50
Boots and saddles (Western army life)	ab	Custer	Harper	1 50
Boys coastwise (Atlantic, B'ds., Illus.)	b	Rideing	Appleton	1 50
Boys of other countries	b	Taylor	Putnam	1 25
Boy travelers (Illus., 15 vols.) . . .				
In Africa, Australasia, Ceylon and India. Central Europe, the				

TRAVEL—Continued.

TITLE	Grade	Author	Publisher	Price
Congo, Egypt, Great Britain and Ireland, Japan, the Levant, Mexico, Northern Europe, the Russian Empire, Siam and Java, South America, Southern Europe, <i>each</i>	ab	Knox.....	Harper.....	\$3 00
Century World's Fair book (Illus.)	b	Jenks.....	Century.....	1 50
Children of the cold [Esquimaux]	ab	Schwatka.....	Cassell.....	1 25
English traits.....	a	Emerson.....	Houghton.....	1 75
Fairy geography (Illus.).....	b	Winslowe.....	Dillingham.....	1 00
Family flights (5 vols., Illus.), Around home, over Egypt and Syria, through France, Germany, Norway and Switzerland, through Mexico, through Spain, <i>each</i> . (Boards, \$1.75).....	ab	Hale.....	Lothrop ..	2 25
Historic handbook of the northern tour.....	ab	Parkman.....	Little.....	1 50
How I found Livingstone (Illus.)	ab	Stanley.....	Scribner.....	3 50
Knockabout club series, including In the Everglades, In the Antilles, In Spain, In North Africa, In the Tropics, (Illus.). (<i>each</i> \$1.50, in boards).....	ab	Ober.....	Estes.....	2 00
Knocking round the Rockies (Illus.).....	b	Ingersoll.....	Harper.....	2 00
Land of the midnight sun [Scandinavia, Illus., 2 vols.].....	ab	Du Chaillu.....	Harper.....	7 50
Ocean steamships (Illus.).....	ab	Chadwick et al.	Scribner.....	3 00
Our new way round the world (Illus.).....	ab	Coffin.....	Estes.....	2 50
Oregon trail (Illus.).....	ab	Parkman.....	Little..	1 00
Real Japan, The (Illus.).....	a	Norman.....	Scribner.....	1 50
Some strange corners of our country (Illus.).....	b	Lummis....	Century.....	1 50
Stories of the gorilla country.....	b	Du Chaillu...	Harper.....	1 00
Thousand miles up the Nile, A (Illus.).....	a	Edwards.....	Routledge.....	2 50
Thousand miles' walk across So. America, A (Illus.).....	b	Bishop.....	Lee.....	1 50
Two years before the mast.....	ab	Dana.....	Lovell.....	50
Under the southern cross [Australia].....	a	Ballou.....	Houghton.....	1 50
Voyage of the paper canoe [Quebec to Gulf of Mexico] (Illus.)	a	Bishop.....	Lee.....	1 50
World and its people (8 vols., bds., 40 to 75c).....	cba	Dunton, <i>ed.</i>	Silver.....	.....
Zigzag journey series (Illus.), including Journeys in Europe, Classic Lands, The Orient, The Occident, Northern Lands, Acadia, Australia, British Isles, The Levant, The Sunny South, India, The Antipodes, The Great Northwest, and On the Mediterranean, <i>each</i> (Boards, \$1.75).....	b	Butterworth....	Estes.....	2 00

SCIENCE

TITLE	Grade	Author	Publisher	Price
Adventures of a young naturalist (Illus.)	ab	Biart	Harper	\$1 25
Agriculture, Principles of	a	Winslow	Am. Bk. Co....	60
Animal life, sea and land.....	b	Cooper	Am. Bk. Co..	1 25
Beauties of nature (Illus.)... ..	a	Lubbock.....	Macmillan....	1 50
Birds through an opera-glass (Illus.)	ab	Merriam.....	Houghton.....	75
Black Beauty [Story of a horse]....	b	Sewell.....	Crowell..	75
Chemical history of a candle.....	ab	Faraday	Harper	85
Childhood of the world.....	b	Clodd.....	Lippincott.....	90
Domesticated animals (Illus.).....	ab	Shaler	Scribner.....	2 50
Each and all (Follows "Seven little sisters").....	bc	Andrews.....	Lee ...	50
Earth and man [Comparative physical geography]	a	Guyot .	Scribner.....	1 75
Easy star lessons (Illus.).....	ab	Proctor.....	Putnam	2 50
Electricity for everybody.....	a	Atkinson	Century	1 50
Elements of chemistry.....	a	Remsen	Holt.....	1 00
Experimental science [Physics] (Illus.)	a	Hopkins.....	Munn	4 00
Fairy-land of flowers (Bds.).....	bc	Pratt	Ed. Pub. Co...	1 00
Fairy-land of science.....	ab	Buckley	Appleton	1 50
First book in geology.....	ab	Shaler.....	Heath.....	1 00
First book of zoology.....	ab	Morse	Appleton	1 00
First principles of agriculture.....	a	Voorhees	Silver.....	60
Forms of water... ..	ab	Tyndail.....	Appleton ..	1 50
Geological story briefly told, The..	a	Dana.....	Am. Bk. Co....	1 15
History of a mouthful of bread....	b	Mace.....	Harper ...	1 00
Home studies in nature [Birds, insects, etc.].....	ab	Treat.....	Am. Bk. Co...	90
Homes without hands (Illus.).....	a	Wood .	Longmans.....	3 00
How plants grow (Bds.).....	ab	Gray	Am. Bk. Co....	80
Leaves from nature's story-book (3 vols., Bds.).....	bc	Kelly	Ed. Pub. Co...	1 20
How plants behave.....	ab	Gray	Am. Bk. Co....	54
How to know the wild flowers....	a	Dana.....	Scribner..	1 75
Life and her children [animals, etc.]	a	Buckley.....	Appleton.....	1 50
Little folks in feathers and fur (Illus.).....	c	Miller..	Dutton ...	2 50
Madam How and Lady Why [The earth] .	ab	Kingsley.....	Macmillan.....	50
Natural history for young folks [animals] (Illus.).....	b	Wood.....	Routledge.....	4 00
Nature stories for young readers (Plants, 30; animals, 40).....	c	Bass.....	Heath.....	70
Naturalist's voyage in the "Beagle"	ab	Darwin.....	Routledge.....	1 00
Nature study	b	Jackman	Holt	1 50
Neighbors with claws and hoofs ..	b	Johonnot	Am. Bk. Co ...	60
Ocean of air, The	b	Giberne.....	Merrill	1 25
Physics (Any good text-book).....				
Physical geography (Any good text-book)				
Pictures and stories of animals (Illus. 2 parts, each \$1.)	bc	Tenney.....	Lee	2 00
Queer little people [animals] (Illus.)	bc	Stowe.....	Houghton	1 25
Seaside and wayside, (Vols. I to IV, 25, 35, 55, 70).....	cb	Wright	Heath	1 85
Servants of the stomach..	b	Mace.....	Harper	1 00
Seven little sisters [Races of men]	c	Andrews.....	Lee	50

SCIENCE — Continued.

TITLE	Grade	Author	Publisher	Price
Sketches of creation (Illus.).....	a	Winchell	Lee	\$2 00
Smoking and drinking	a	Parton.....	Osgood... ..	1 00
Stories Mother Nature told her children (Boards).....	c	Andrews.....	Ginn	50
Stories of the sagacity of animals (2 vols., Illus., each 80c).....	b	Kingston.....	Nelson	1 60
Story of our continent [Geology]..	ab	Shaler	Ginn	75
Succession of forest trees (Paper)	ab	Thoreau.....	Houghton	15
Sun, moon and stars (Illus.).....	b	Giberne.....	Merrill	1 50
Through magic glasses	b	Buckley	Appleton	1 50
Up and down the brooks [Insects] (Illus.).....	b	Bamford	Houghton	75
Wings and fins	bc	Johonnot	Am. Bk. Co....	40
Winners in life's race [animals] (Illus.)....	ab	Buckley.....	Appleton	1 50
With the wild flowers (Illus.).....	ab	Hardinge.....	Baker.....	1 00
Young housekeeper.....	ab	Parloa	Estes.....	1 00

SOCIAL, POLITICAL, MORAL

TITLE	Grade	Author	Publisher	Price
American commonwealth (2 vols).	a	Bryce	Macmillan	\$4 00
American political ideas	a	Fiske	Harper	1 00
American citizen, The.....	a	Dole	Heath	1 00
Among the law-makers [Congress] (Illus.).....	ab	Bailey (Alton)..	Scribner	1 50
Century book for young Americans [Government] .	b	Brooks	Century	1 50
Chats with girls on self culture....	ab	Chester.....	Dodd	1 25
Character	a	Smiles	Burt.....	1 00
Childhood of religions.....	ab	Clodd	Appleton	1 25
Familiar talks to boys.....	ab	Hall	Dodd	1 00
Getting on in the world	ab	Mathews	Griggs	1 50
How to do it [Manners].....	ab	Hale	Roberts	1 00
How we are governed.....	a	Dawes	Lothrop	1 50
On self culture	a	Blackie.....	Scribner	1 00
On the threshold [For girls].....	ab	Munger	Houghton	1 00
Patriotic citizenship (Illus.).....	ab	Morgan	Am. Bk. Co....	1 00
Politics for young Americans.....	a	Nordhoff	Am. Bk. Co....	75
Self help.....	a	Smiles	Burt.....	1 00
What career? [Choice of a vocation]	a	Hale	Roberts.....	1 25

MYTHOLOGY AND FOLK LORE

TITLE	Grade	Author	Publisher	Price
Æsop's fables	abc	.....	Putnam.... .	\$0 50
Age of chivalry; or, legends of King Arthur.....	ab	Bulfinch.....	Lee.....	2 50

MYTHOLOGY AND FOLK LORE -- Continued.

TITLE	Grade	Author	Publisher	Price
Age of fable; or, Beauties of mythology	ab	Bulfinch	Lee	\$2 50
Alhambra [Spanish legends] (Illus. \$1.50)	a	Irving..	Putnam	75
Alice's adventures in Wonderland (Illus)	c	{ Dodgson } { (Carroll) }	Macmillan	1 00
Arabian nights.....	b	.....	Houghton.....	1 00
At the back of the north wind (Illus.).....	bc	Macdonald.....	Routledge	1 25
Fables and folk stories.....	bc	Scudder	Houghton.....	40
Flipwing, the spy.....	bc	Wesselhoeft....	Roberts.....	1 25
Fairy tales.....	bc	Grimm	Macmillan	2 00
Heroes ; Greek fairy tales.....	b	Kingsley.....	Macmillan	1 00
Old Greek stories	ab	Hanson	Nelson	1 00
King of the Golden River	b	Ruskin.	Ginn	25
Legends of Charlemagne [Middle ages]	ab	Bulfinch	Lee,.....	2 50
Legends of Norseland (Illus.)....	bc	Pratt	Ed. Pub. Co....	50
Little lame prince.....	c	Mulock	Harper	1 00
Myths and myth makers.....	a	Fiske	Houghton.....	2 00
Old stories re-told [Jack and bean-stalk, etc.]	c	Binner	Bardeen	25
Sparrow, the tramp.....	c	Wesselhoeft....	Roberts.....	1 25
Stories and tales.....	b	Andersen	{ Houghton } { or Ginn } ..	40
Stories from Homer.....	b	Church	Ginn	40
Stories of Old Greece (Bds., Illus.)	bc	Firth	Heath.....	75
Stories of King Arthur (Illus.)....	b	Hanson	Nelson	1 25
Story of Siegfried.....	ab	Baldwin.....	Scribner	1 50
Story of the German Iliad	b	Burt	Maynard	50
Story of the Iliad (Illus. \$1.00)....	ab	Church	Macmillan	50
Story of the Odyssey (Illus. \$1.00).	ab	Church	Macmillan	50
Tanglewood tales.....	b	Hawthorne ...	Houghton.....	40
Through the looking glass (Illus.)	c	Dodgson.....	Macmillan	1 00
Uncle Remus (Illus. \$2.00)	b	Harris.....	Appleton	1 50
Waterbabies.....	b	Kingsley.....	Ginn	35
Wonder-book	b	Hawthorne	Houghton.....	40

LITERATURE

TITLE	Grade	Author	Publisher	Price
Æneid (Macmillan, \$1)	a	Virgil	Routledge	\$0 40
Adventures of Ulysses (Boards.)..	c	Lamb.....	Ginn	25
Æschylus (Copleston's Translation) (Plumptre's Tr. Rout. \$1.50)	a	.....	Lippincott	50
A-Hunting of the deer	ab	Warner.....	Houghton	25
American taxation, conciliation with America, etc.....	a	Burke.....	Macmillan	70
Areopagitica.....	a	Milton	Macmillan	75
Aristophanes (Frere's Tr., Rout., 40c)	a	.....	Lippincott.....	50
Agricola and Germania (Church and Bradwill)	a	Tacitus	Macmillan	1 25

LITERATURE — Continued.

TITLE	Grade	Author	Publisher	Price
Andromache (Boswell's Tr.).....	a	Racine.....	Macmillan.....	\$0 30
Athaliah (Boswell's Tr.).....	a	Racine.....	Macmillan.....	30
Autocrat of the breakfast table....	a	Holmes.....	Houghton.....	50
Backlog studies (Illus.)	a	Warner.....	Houghton.....	1 00
Being a boy [Humorous].....	ab	Warner.....	Houghton.....	1 25
Birds and bees, Sharp eyes, etc....	ab	Burroughs.....	Houghton.....	40
Catullus.....	a	.....	Macmillan.....	1 50
Childe Harold.....	a	Byron.....	Houghton.....	75
Childhood.....	ab	Johnson, <i>Ed.</i>	Houghton.....	1 00
Child life [Collection, for and about children].....	ab	Whittier.....	Houghton.....	2 00
Comedies (Colman's Tr.).....	a	Terence.....	Harper.....	1 00
Comus.....	a	Milton.....	Macmillan.....	40
Conduct of the understanding....	a	Locke... ..	Macmillan.....	50
Confessions of an opium eater....	a	De Quincey....	Routledge.....	40
Critical and historical essays.....	a	Macaulay.....	Longmans.....	1 75
Dante handbook.....	a	Davidson.....	Ginn.....	1 25
De rerum natura (Tr.).....	a	Lucretius.....	Macmillan.....	1 50
Deserted village, Traveler, etc....	a	Goldsmith.....	Houghton.....	40
Divina commedia (3 v. in 1, Longfellow's Tr.).....	a	Dante.... ..	Houghton.....	2 50
Doctor Faustus (also Goethe's Faust, 1st part).....	a	Marlowe.....	Routledge.....	40
Dramatic works (Tr., 2 vols.).....	a	Racine.....	Routledge.....	2 00
Dramatic works (Tr., 3 vols.) (Selections, Routledge, 40c).....	a	"Moliere"....	Macmillan.....	3 00
Dream life (A fable of the seasons).	ab	Mitchell.....	Scribner.....	75
Emile.....	a	Rousseau.....	Heath.....	80
Essay on criticism, Rape of the lock, etc.....	a	Pope.....	Macmillan.....	40
Essay on man.....	a	Pope.....	Maynard.....	24
Essays.....	a	Bacon.....	Macmillan.....	60
Essays (Paper).....	a	Carlyle.....	Funk.....	20
Essays (First and second series)...	a	Emerson.....	Houghton.....	1 00
Ethics of the dust... ..	a	Ruskin.....	Crowell.....	50
English lands, letters and kings (2 vols).....	a	Mitchell.....	Scribner.....	3 00
Faerie queene, The.....	a	Spenser.....	Macmillan.....	50
Faust (Swanwick's Tr.).....	a	Goethe	Burt.....	1 00
First Bunker Hill, Adams and Jefferson (Paper).....	a	Webster.....	Houghton.....	15
Flight of a Tartar tribe.....	a	DeQuincey....	Am. Bk. Co....	20
From the easy chair (3 vols.).....	a	Curtis.....	Harper... ..	3 00
Heart of oak series [Selected classics, prose and poetry,] (Vols. I to VI, price each 25 to 75c).....	abc	Norton, <i>Ed.</i>	Heath.....	.....
Herman and Dorothea.....	a	Goethe.....	Putnam	1 00
Heroes and hero worship.....	a	Carlyle... ..	Little.....	45
Horace.....	a	.....	Macmillan.....	1 00
Household book of poetry (Collection).....	ab	Dana, <i>ed.</i>	Appleton.....	5 00
Iliad, The, Bryant's Tr. (Pope's Tr., Routledge, \$1.40).....	a	Homer.....	Houghton.....	2 50
Iphigenia in Tauris (Swanwick's Tr.)	a	Goethe.....	Macmillan.....	30
Knickerbocker's New York [Satire on Dutch rule].....	ab	Irving.....	Lovell.....	50
Knightes tale (with notes)	a	Chaucer.....	Maynard.....	40
L'Allegro, Il penseroso, Lycidas, etc.....	a	Milton.....	Macmillan.....	40

LITERATURE—Continued.

TITLE	Grade	Author	Publisher	Price
Laocoön [On painting, poetry, etc., <i>Tr.</i>]... ..	a	Lessing.....	Macmillan.....	\$0 30
Lays of ancient Rome (Illus., \$1.00)	ab	Macaulay.....	Harper.....	56
Lalla Rookh	a	Moore.....	Maynard.....	24
Library of poetry and song (Illus.).	ab	Bryant, <i>Ed.</i>	Fords	5 00
Light of Asia	a	Arnold	Roberts.....	75
Locusts and wild honey [Out door life]	ab	Burroughs.....	Houghton . . .	1 25
Marcus Aurelius (Boards).....	ab	.....	Ginn	35
Mother Goose (Linen cover)	c	.....	Lippincott	30
My summer in a garden [Humorous]	ab	Warner.....	Houghton	1 00
Nathan the wise.....	a	Lessing.....	Macmillan.....	30
Nibelungen lied.....	a	.....	Routledge.....	1 40
Odyssey, The, Bryant's <i>Tr.</i> (Pope's <i>Tr.</i> with Iliad, Routledge, \$1.40)	a	Homer	Houghton.....	2 30
Old age, Friendship.....	a	Cicero.....	Macmillan.....	50
Open sesame [Valuable collection, vol. I, c; II, b; III. a]	a	Bellamy et al., <i>ed.</i>	Ginn	3 00
Oration on the crown	a	Demosthenes...	Macmillan.....	50
Paradise lost	a	Milton.....	Crowell.....	75
Pilgrim's progress	ab	Bunyan.....	Lovell.....	50
Pied piper of Hamelin.....	ab	Browning.....	Houghton	40
Poems and plays, <i>Tr.</i>	a	Schiller.....	Routledge . . .	2 50
Poetical works (Selections, Crowell, 75c).....	a	Browning, Robt	Houghton	3 00
Poetical works (Selections, Crowell, 75c.).....	ab	Bryant	Appleton.....	1 50
Poetical works	ab	Burns	Crowell	75
" "	a	Byron	Crowell	75
" "	a	Coleridge.....	Crowell	75
" "	a	Cowper	Crowell	75
" "	a	Dante	Crowell	75
" " (Selections)	a	Dryden	Crowell	75
" "	a	Emerson	Houghton	1 50
" "	a	Gray	Macmillan.....	75
" "	a	Heinö	Crowell	75
" "	ab	Holmes	Houghton	1 50
" "	a	Keats	Crowell	75
" "	ab	Longfellow ...	Houghton	1 50
" "	ab	Lowell	Houghton	1 50
Poetical works (Selections, Crowell, 75c)	a	Milton	Macmillan.....	1 75
Poetical works	ab	Poe	Crowell	75
Poetical works (Selections, Crowell, 75c).....	a	Pope	Macmillan	1 75
Poetical works (Crowell, 75c).....	ab	Scott	Little.....	1 25
" "	a	Shelley	Crowell	75
" "	a	Southey	Crowell	75
" "	a	Spenser	Crowell	75
Poetical works (Selections, Crowell, 75c).....	ab	Tennyson.....	Macmillan.....	1 75
Poetical works	a	Thomson	Crowell	75
" "	ab	Whittier.....	Houghton	1 50
Poetical works (Selections, Crowell, 75c).....	a	Wordsworth ...	Macmillan.....	1 75
Poetry for children (Illus.)	bc	Eliot, <i>Ed.</i> .. .	Houghton . . .	80
Prisoner of Chillon (Paper).....	ab	Byron	Maynard	10
Prologue to Canterbury tales	a	Chaucer	Maynard	25

LITERATURE—Continued.

TITLE	Grade	Author	Publisher	Price
Plays (School editions) As you like it, Hamlet, Henry IV, Julius Caesar, Lear, Macbeth, Merchant of Venice, Mid-summer night's dream, Richard III, Tempest (Ginn's, edited by Hudson, each 45c net; Harper's, edited by Rolfe, each 56c net; Maynard's, edited by Kellogg, each 30c)....	a	Shakespeare ...	.....	.....
Plays.....	a	Sheridan.....	Scribner.....	\$o 75
Plays.....	a	Sophocles	Routledge.. ...	40
Reveries of a bachelor.....	ab	Mitchell.....	Scribner.....	75
Sartor resartus [A philosophic romance].....	a	Carlyle.....	McClurg.....	I 00
Satires (Leeper's Tr.).....	a	Juvenal.....	Macmillan.....	I 00
Sesame and lilies [Books, women, etc.].....	a	Ruskin.....	CrowellorLovell	50
Sir Roger de Coverly papers.....	a	Addison.....	Houghton.....	40
Sketch book [Rip Van Winkle,etc.]	ab	Irving.....	Putnam	75
Socrates	a	Plato.....	Scribner... ..	I 00
Sophocles (Tragedies, Harpers, 75c).....	a	.....	Routledge.....	40
Squieres tale, The.....	a	Chaucer	Maynard.....	35
Stories from Chaucer.....	ab	Seymour	Nelson	I 25
Stories from Shakespeare (2 vols., Illus.).....	ab	Pratt	Ed. Pub. Co...	I 00
Stories from Homer.....	b	Church	Ginn	40
Stories from Homer.. ..	bc	Hanson.....	Nelson	I 00
Stories from King Arthur	b	Hanson	Nelson	I 00
Stories from Livy.....	b	Church	Dodd	I 00
Stories from Plato.....	ab	Burt.....	Ginn	50
Stories from the Greek tragedians.	ab	Church	Dodd	I 00
Stories from Virgil.....	b	Hanson	Nelson	I 00
Tales of a traveler (paper).....	ab	Irving	Maynard	12
Tales from Shakespeare (Illus.)...	ab	Lamb	Houghton	50
Thirty years of Paris (Tr.).....	a	Daudet	Routledge	I 00
Wake robin	a	Burroughs	Houghton	I 00
Walden	a	Thoreau	Houghton	I 50
William Tell (Martin's Tr.).....	a	Schiller.....	Macmillan	30
Works (Plays and poems, Routledge, 40c.).....	a	Jonson	Appleton	3 00

Cheap editions of literary classics are published in paper or cloth by a number of firms; among them are the Riverside literature series and Modern classics, published by Houghton, Classics for children, published by Ginn, and English classics, published by Maynard.

FICTION

TITLE	Grade	Author	Publisher	Price
Adam Bede.....	a	Eliot	Lovell.....	\$50
Adventures of Telemachus [Duties of a prince] (Illus.).....	a	Fenelon.....	Appleton	2 00
All sorts and conditions of men [City poverty].....	a	Besant.....	Harper	I 25

FICTION—Continued.

TITLE	Grade	Author	Publisher	Price
Antiquary [Scotland, about 1800]..	ab	Scott	Macmillan.....	\$0 40
Around the world in 80 days.....	ab	Verne	Lovell.....	50
Arthur Bonnicastle [School life]...	ab	Holland.....	Scribner	1 25
Battle of New York [Riots in '63] (Illus.).....	b	Stoddard.....	Appleton	1 50
Ben Hur; a tale of the Christ.....	a	Wallace	Harper	1 50
Bimbi (Illus.)....	bc	La Rame.....	Lippincott.....	1 50
Birds' Christmas carol....	b	Wiggin	Houghton	50
Blind Brother [Penn.coal breakers].	b	Greene	Crowell.....	90
Burnham breaker [Coal regions]...	b	Greene	Crowell.....	1 50
Boy emigrants [The West] (Illus.)..	b	Brooks	Scribner.....	1 25
Boy settlers (Sequel; Illus.). . . .	b	Brooks	Scribner.....	1 25
Boys of Greenway Court [Wash- ington].. . . .	b	Butterworth....	Appleton.....	1 50
Boys' town, A (Illus.).....	ab	Howells	Harper	1 25
By pike and dyke [Dutch Repub- lic].....	ab	Henty	Scribner.....	1 00
Cast away in the cold.....	ab	Hayes	Lee	1 25
Christmas stories	ab	Dickens	Houghton.....	40
Cloister and the hearth, The [Mid- dle ages]	a	Reade.....	Harper	75
Dab Kinzer (Illus.).....	b	Stoddard.....	Scribner	1 00
David Balfour [Scotland] (Follows "Kidnapped").....	ab	Stevenson.....	Scribner.....	1 50
David Copperfield [Author's life].	ab	Dickens	Lovell.....	50
Debit and credit.....	a	Freitag	Ward	1 00
Dog of Flanders (Little Classics, Childhood)	bc	La Rame.....	Houghton.. . .	1 00
Dombey and Son.....	ab	Dickens.....	Lovell.....	50
Don Quixote [Spain, 16th century]	a	Cervantes	Lovell.....	50
Dove in eagle's nest [German feu- dal barons]....	ab	Yonge	Lovell.....	50
Evolution of "Dodd" [Pedagogi- cal].	a	Smith	Rand.....	75
Faith Gartney's girlhood.....	ab	Whitney	Houghton	1 25
Five little Peppers	b	Lothrop	Lothrop	1 50
For the temple [Fall of Jerusa- lem] ...	a	Henty.....	Burt	1 00
Four Macnichols [Adventures in Hebrides].	b	Black	Harper	1 00
From the earth to the moon. (Illus.).....	ab	Verne	Scribner	2 00
Grandmother dear.....	bc	Molesworth ...	Macmillan.. . .	1 00
Gulliver's travels [Satire] (Illus Routledge, \$1.25).....	ab	Swift	Lovell.....	50
Guy Mannering [Gypsies, Scotland 18th century]...	a	Scott	Macmillan	40
Hans Brinker [Life in Holland.] (Illus.).. . . .	b	Dodge	Scribner	1 50
Heidi [A Swiss girl].....	b	Spyri	De Wolfe	1 50
Henry Esmond [Time of Queen Anne]	a	Thackeray	Crowell	1 00
Hoosier schoolmaster [Early west- ern life].....	ab	Eggleston.....	Scribner	1 25
House of seven gables	a	Hawthorne	Lovell.....	50
Hypatia [Alexandria, 5th century],	a	Kingsley	Lovell.....	50
In the reign of terror [French Re- volution].....	a	Henty	Burt	1 00
In the valley [Mohawk, early days].	a	Frederic	Scribner	1 50

FICTION—Continued.

TITLE	Grade	Author	Publisher	Price
It is never too late to mend [English prisons, Australia]	ab	Reade	Harper	\$0 75
Ivanhoe [England, chivalry]	ab	Scott	Macmillan	40
Jackanapes, Story of a short life, etc	b	Ewing	Roberts	50
Jack Hazard series, including Jack Hazard and his fortunes, Chance for himself, Doing his best, Fast friends, Young surveyor, <i>each</i>	b	Trowbridge	Porter	1 25
Jan of the windmill	b	Ewing	Roberts	50
Jed [Boy's adventures in army]	b	Goss	Crowell	1 50
Journey to the center of the earth (Illus.)	ab	Verne,	Scribner	2 00
John Halifax, gentleman [English life]	a	Craik	Lovell	50
Juan and Juanita [Mex. children]	ab	Baylor	Houghton	1 50
Jungle book (Illus.)	ab	Kipling	Century	1 50
Kenilworth [England, 17th century]	a	Scott	Macmillan . . .	40
Kidnapped [Scotland]	ab	Stevenson	Weeks	50
Knight of liberty, The [Lafayette] (Illus.)	b	Butterworth ...	Appleton	1 50
Knight of the XIX century	a	Roe	Dodd	1 50
Last days of Pompeii	a	Bulwer	Lovell	50
Leather stocking tales [Indians and hunters] Deerslayer, Pathfinder, Last of the Mohicans, Pioneers, Prairie, <i>each</i>	ab	Cooper	Lovell	50
Les misérables [France]	a	Hugo	Burt	1 00
Letters from a cat (Illus.)	c	Jackson	Roberts	1 25
Lion of the North, The [Gustavus Adolphus]	a	Henty	Burt	1 00
Little Daffydowndilly (paper)	c	Hawthorne	Houghton	15
Little Men	b	Alcott	Roberts	1 50
Little Pussy Willow	bc	Stowe	Houghton	1 25
Little Smoke [Indians] (Illus.)	b	Stoddard	Appleton	1 50
Little Lord Fauntleroy (Illus.)	b	Burnett	Scribner	2 09
Little women	b	Alcott	Roberts ...	1 50
Log school-house on the Columbia (Illus.)	b	Butterworth	Appleton	1 50
Lorna Doone [Eng., 17th century]	a	Blackmore	Lovell	50
Man without a country	b	Hale	Roberts	1 00
Marble faun [Italian life, sculpture]	a	Hawthorne ...	Houghton	2 00
Masterman Ready	b	Marryatt	Routledge	1 00
Micah Clarke [Monmouth's rebellion]	a	Doyle	Lovell	50
Midshipman Paulding	b	Seawell	Appleton	1 00
Mysterious island (Illus., Scrib., \$2.50)	ab	Verne	Lovell	50
Neighbor Jackwood series [slavery] Neighbor Jackwood, Cudjo's cave, Three scouts, <i>each</i>	ab	Trowbridge	Lee	1 50
Nelly's silvermine [Colorado life] ..	b	Jackson	Roberts	1 50
Newcomes, The [English school-boy] ..	a	Thackeray	Burt	1 00
Nicholas Nickleby [A Yorkshire school] ..	a	Dickens	Lovell	50
Old creole days [Louisiana]	a	Cable	Scribner	1 25

FICTION—Continued.

TITLE	Grade	Author	Publisher	Price
Old curiosity shop ["Little Nell"].	ab	Dickens	Lovell.....	\$0 50
Oldtown folks [Colonial life, New England]	a	Stowe	Houghton	1 50
On the old frontier [Indians] (Illus.)	b	Stoddard.....	Appleton.....	1 50
Our new crusade [Temperance]...	a	Hale	Roberts	1 00
Patriot school-master [Adams] ...	b	Butterworth ...	Appleton	1 50
Paul Jones.....	b	Seawell.....	Appleton	1 00
Paul and Virginia.....	a	St. Pierre.....	Houghton	40
Picciola [French prisoner].....	a	Saintine	Houghton	1 00
Pilot, The [Paul Jones].....	ab	Cooper... ..	Lovell.....	50
Prince and the pauper, The [Eng., 16th century]	b	Clemens.....	Webster	1 00
Princess of Thule, A [Hebrides]..	a	Black	Harper	1 25
Prue and I.....	a	Curtis.	Harper	1 50
Put yourself in his place [Trades unions]	a	Reade	Harper	75
Quentin Durward [Louis XI, of France]... ..	a	Scott	Macmillan	40
Rab and his friends.....	ab	Brown	Houghton	25
Raiders, The [Smuggling in Scot.].	a	Crockett.....	Houghton	1 50
Ramona [Indian question].....	ab	Jackson	Roberts	1 50
Rasselas, prince of Abyssinia.....	a	Johnson	Ginn	30
Real folks.....	ab	Whitney.....	Houghton	1 25
Refugees, The [Louis XIV]	a	Doyle	Harper	1 75
Remember the Alamo.....	ab	Barr	Dodd	1 25
Rienzi [Rome, 14th century].....	a	Bulwer	Burt	75
Rise of Silas Lapham	a	Howells	Houghton	1 50
Robinson Crusoe (Illus.).....	b	Defoe	Scribner	75
Rob Roy [Scotland, 1715]	a	Scott	Macmillan	40
Romola [Italy, 15th century].....	a	Eliot	Lovell.....	50
Rudder grange [Humorous]	ab	Stockton .. .	Scribner	1 25
Saracinesca	a	Crawford.....	Macmillan	1 00
Scarlet letter [Early days of New England].....	a	Hawthorne	Houghton	30
Schonberg Cotta family, The [Luther's days]	a	Charles.....	Dodd.....	1 00
Sevenoak's [American life].....	a	Holland	Scribner.....	1 25
Silas Marner [Eng., last century]..	a	Eliot	Houghton	40
Snow image (Paper).. ..	b	Hawthorne	Houghton	15
Spy, The [Am. revolution]	ab	Cooper.....	Lovell.....	50
Story of a bad boy [Partly autobiographical].....	b	Aldrich.....	Houghton	1 25
Summer in Leslie Goldthwaite's life	ab	Whitney.....	Houghton	1 25
Swiss family Robinson [Pacific island].....	b	Wyss et al	Ginn	50
Tale of two cities, A [French revolution].....	a	Dickens.....	Lovell... ..	50
Talisman, The [Third crusade]....	ab	Scott	Macmillan.....	40
Timothy's Quest (Illus.)	ab	Wiggin	Houghton	1 00
Tom Brown at Rugby [English school].. ..	ab	Hughes.....	Lovell.....	50
Treasure island [Buccaneers] (Illus.).....	ab	Stevenson	Scribner	1 00
Twenty thousand leagues under the sea	ab	Verne	Lovell.....	50
Twice-told tales	ab	Hawthorne.....	Lovell.....	50
Two little Confederates (Illus.)....	b	Page	Scribner.....	1 50
Two little pilgrims' progress (Illus.)	ab	Burnett	Scribner.....	1 50

FICTION — Continued.

TITLE	Grade	Author	Publisher	Price
Uarda [Egypt] (2 vols.).....	a	Ebers.....	Appleton.....	\$1 50
Uncle Tom's cabin [Slavery].. .	ab	Stowe	Houghton	50
Under Drake's flag [Spanish main].....	ab	Henty	Scribner.....	1 00
Under the lilacs (Illus.)	ab	Alcott.....	Roberts.....	1 50
"Us"	bc	Molesworth ...	Macmillan.....	1 00
Vicar of Wakefield [England, last century].....	ab	Goldsmith	Houghton	40
Waterloo [Napoleonic wars].....	a	Eckerman et al.	Scribner	1 25
We girls.....	ab	Whitney.....	Houghton . . .	1 25
Westward Ho! [Time of Elizabeth]	a	Kingsley	Macmillan.....	50
What Katy did (Illus.)	bc	Woolsey.....	Roberts.....	1 25
What Katy did at school (Illus.)..	bc	Woolsey.....	Roberts.....	1 25
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1898: Milton's *Paradise Lost*; Pope's *Iliad*, Books I and XXII; *The Sir Roger de Coverley Papers* in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Coleridge's *Ancient Mariner*; Southey's *Life of Nelson*; Carlyle's *Essay on Burns*; Lowell's *Vision of Sir Launfal*; Hawthorne's *The House of the Seven Gables*.

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